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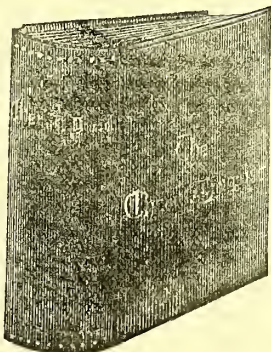
For Australasian subscribers the subsidiary journal *THE CHEMIST AND DRUGGIST OF AUSTRALASIA* is included.

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THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5s. per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia*. Single copies can be supplied at 6d. each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.



THIS number completes the thirty-first volume of *THE CHEMIST AND DRUGGIST*, and is the fifty-third of the year. It is rarely the case that more than fifty-two Saturdays occur in one year, so that this number may be regarded by subscribers as an extra.

THE index which accompanies this number is larger and more complete than any which we have printed since *THE CHEMIST AND DRUGGIST* became a weekly journal. It contains nearly 3,000 references, most of which are connected with practical and useful matters such as every chemist and druggist frequently wishes to lay his hands upon. Ready reference is only possible where the journals are in a handy form ; we therefore strongly advise all our subscribers to put their numbers for the past six months in the binder's hands without delay.

THE approval by the Privy Council of the gentlemen who at the last meeting of the Pharmaceutical Council were elected examiner has been intimated.

CITY AND GUILDS OF LONDON INSTITUTE (CENTRAL INSTITUTION).—On January 23 a course of ten lectures on the chemistry of oils and fats will be commenced by Dr. A. K. Miller, Demonstrator and Assistant in the Chemical Research Laboratory. The lecture-subjects will comprise petroleum, shale oil, and their products, as well as the oils, fats, &c., of vegetable and animal origin, including soaps, glycerine, and waxes. The lectures will be given on Mondays at 4 P.M.

POISONING CASES.—*Laudanum*.—At Bedford, on December 27, a man was found in a third-class compartment of the Manchester train fast asleep, with a 2-oz. bottle which had contained laudanum beside him. He was removed to the Infirmary, where he died. Deceased had travelled from St. Pancras. Edward C. Poppleton, farmer, was charged at the Epworth Police Court on December 23 with attempting to commit suicide. James Faulds, thirty-four, a boiler-maker, died at Glasgow on December 26 from the effects of the narcotic accidentally taken in overdose. *Liquid Ammonia*, on December 26, was taken by Annie Clarke (Accrington) in mistake for whisky. It did her little harm.

We call attention to a letter from Mr. Gustav Briegleb, of Amsterdam, which appears in our Correspondence columns. The writer is intimately acquainted with the cinchona business, and although his communication is clearly written from the standpoint of one whose sympathies are with his own market rather than with London, it deserves attention as showing that Holland is not prepared to relinquish without an effort her position as a centre of the cinchona trade. It is questionable whether London firms, instead of contenting themselves, as some do, with reviling their Continental rivals in private trade circulars, had not better take a leaf out of the Amsterdam book, especially in the matter of bark analyses.

THE LAWSUIT RESPECTING THE LANOLIN PATENT, in which the Berlin firm of J. D. Riedel endeavoured to obtain the annulment of that patent, held by Messrs. Benno Jaffé & Darmstädter, has been decided by the German Imperial Court in favour of the defendants. The Court holds that the mixing of pure wool fat and water constitutes an infringement of the patent in question, a judgment which upsets that of the German Patent Office authorities, who had declared that the patent only protected the successive manipulations required for the manufacture of lanolin, and not the mere mixing of wool fat and water.

ADVERTISEMENTS of employers and assistants can be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

LECTURE BY A CHEMIST.—Mr. Salt Brassington, chemist, of Moseley, delivered a lecture at the monthly meeting of the archaeological section of the Midland Institute on December 28, on "An Old Birmingham Lecturer, Thomas Hall, A.D. 1610-1665." The lecture was illustrated by lantern views principally relating to King's Norton and district.

DR. FOWLER BODINGTON, formerly President of the Birmingham Medical Institute, of the Midland Medical Society, and of the Birmingham and Midland Counties Branch of the British Medical Association, who has for many years been resident in this district, first at Sutton and afterwards at Kingswinford, is leaving this neighbourhood for British Columbia, where he intends to take up a practice. An address has been presented to him from a large number of the foremost medical practitioners of the district, conveying an assurance of the high regard and esteem in which Dr. Bodington has been held for many years by all those who have had professional and social relations with him, expressing the opinion that he conferred distinction upon the honourable positions which he has held, and heartily wishing him success and prosperity in his new sphere of life.

BURTON-ON-TRENT.

PROSECUTION UNDER THE PHARMACY ACTS.—The case of the Pharmaceutical Society against Mr. W. Deaham, of Lichfield Street, Burton-on-Trent, the preliminary proceedings in which were reported in this journal of December 3, has now been completed. The plaintiffs sued for penalties in respect of the defendant having sold poisons and used the title "chemist." Defendant carries on the business known as the Phoenix Patent Medicine and Drug Stores, Lichfield Street. The sale of poison was admitted, but it was denied that defendant had used the title "chemist," and it was explained that copies of a circular to which that title was attached were wrapped round the goods which he received from a Leeds firm, who had his name and address, with the word "chemist," printed on them without his knowledge. Defendant, however, made it a rule to tear off that portion of the circular containing the word "chemist" before he sent it out, but Mr. Flux (who appeared for the plaintiffs) produced a copy of the bill in its perfect state, and Judge Woodforde adjourned the case for the attendance of the person who obtained the bill. This witness was now present, but Mr. Smallwood, for the defendant, said he would consent to judgment, and expressed regret that the other side had been put to any extra expense. His client, when he saw the witness referred to, recollected the circumstances of the sale and the bill. Judgment was then entered for the plaintiffs, but his Honour refused an application by Mr. Flux for costs on the higher scale.

LAMBOURN, BERKS.

A FATAL ACCIDENT occurred here on Monday, resulting in the immediate death of a fine athletic young man named Ernest Hewett, the son of a serjeant of police stationed at Lambourn. The young man was, with some other friends, having some target shooting, with a breechloading rifle, in the back premises of Mr. Smith, chemist, when Mr. Smith accidentally discharged the rifle as the unfortunate young man was passing in front, and the bullet entering the heart caused instantaneous death.

LEEDS.

UNQUALIFIED PRACTITIONERS.—Attention has been called to the fact that in this district the number of unqualified assistants to medical men is unusually large.

"YORKSHIRE RELISH."—The case of Goodall, Backhouse & Co. v. Wood was disposed of last week before Mr. Justice Stirling in the High Court of Justice. Mr. J. Cutler, who appeared for the plaintiffs, said the action was brought to restrain the infringement of the trade-mark upon "Yorkshire Relish," and a perpetual injunction was granted in the terms of the notice of motion, the defendant agreeing to pay 30% by way of costs and 10% for damages within seven days. His Lordship made an order in the terms arranged.

LIVERPOOL.

ADULTERATION PROSECUTIONS.—At the Liverpool Police Court on Wednesday, before the Stipendiary Magistrate, Mr. T. S. Raffles, Edwin Mickle, chemist, of 48 Stanley Road, Liverpool, was summoned for having sold spirit of nitrous ether which was not of the standard and quality demanded by the purchaser. The defendant stated that the spirit had been bought about four months ago, and it must have decomposed, but he was not aware of the fact. He was fined five shillings and costs. Last Saturday, two shopkeepers were fined for selling chewing gum, and on Wednesday a grocer was charged with selling condensed milk, which Dr. Campbell Brown proved to be made from skimmed milk. It was the "Cow" brand, and this the purchaser specially sought for—hence the magistrate dismissed the case.

NEWCASTLE-ON-TYNE.

BELLADONNA POISONING.—Last week Peter Cooney, twenty-five, residing in Sunderland, mistook some belladonna eye-lotion for coffee, and swallowed a large quantity of it. He at once got an emetic of salt and water, and two medical men were called to his aid, marked symptoms of belladonna poisoning having set in, and they succeeded, by the use of the electric battery and other remedies, in restoring him.

EXHIBITION AWARDS.—The following are amongst the awards which have been announced. In the section of paints, oils, &c., gold medals are awarded to W. H. Holmes & Son, Newcastle, for paints, vermillionette, carminette, &c., and to Burroughs, Wellcome & Co., London, for compressed tablets, tabloids and Kepler's malt extract. In the same section silver medals are awarded to John Ismay & Sons, Newcastle, for Diamond furniture varnish, cod-liver oil, essential oil of lemons, and olive oil. Burroughs, Wellcome & Co. receive a similar medal for medical pocket cases and medicine chests, Colgate's Cashmere soap perfume, lanolin, and other preparations. Silver medals are also awarded to the Washington Chemical Company, Durham, for magnesia and its compounds, and sulphur and its compounds recovered from alkali waste; to St. Bede Chemical Company (Limited), Jarrow, for sodium sulphide and soda ash; to Price's Patent Candle Company (Limited), London, for palmitine candles, glycerine, and toilet soaps; to Brady & Martin, Newcastle, for scientific apparatus; to G. Frater, Newcastle, for varnishes; to J. Sandeman, Glasgow, and W. F. Mather & Co., Newcastle, for oils.

SHEFFIELD.

FIRE AT RIPLEY.—On Saturday evening last a fire broke out on the premises of Mr. Shephard, druggist, Market Place, Ripley. The apprentice, bearing a light, had entered the back room where the inflammable articles were stored, and the flame was communicated to some of them. The fire engines were sent for and arrived, and after a short time the flames were extinguished.

SCOTLAND.

ABERDEEN.

SCIENTIFIC.—A fire occurred on December 23 in Messrs. Cay Brothers' Cash Supply Store, through a tin containing about three gallons of turpentine being set on the top of a lighted gas stove. The flame was extinguished by placing a sack over the top of the tin.

MAGIC! MAGIC!! MAGIC!!!—As a practical outcome of one of the recent prize competitions in THE CHEMIST AND DRUGGIST, Mr. John Cruickshank, 30 George Street, places

before the public in a portable form "a suitable Christmas present for a boy," in the shape of a case of simple, harmless, and striking chemical experiments, with full printed directions, for the sum of 6s. Amongst others in the box are:—"How to raise a ghost," "Eruption of Mount Etna," "Pharaoh's serpent," "To light a candle by word of command," "Beautiful fairy fountains," and "The skeleton in the cupboard."

EDINBURGH.

MR. J. B. DUNLOP, who for several years has acted as manager for Messrs. Gardner & Ainslie, George Street, has acquired a business in Blairgowrie.

CHEMISTS' ASSISTANTS AND APPRENTICES' ASSOCIATION.

—The fourth annual conversazione of the Chemists' Assistants and Apprentices' Association was held in the Literary Institute on Friday evening, December 23. Mr. George Lunan, president of the association, occupied the chair, and with him on the platform were Messrs. McGlashan, Rutherford Hill, W. Duncan, P. M. Hendry, Boa, Coull, and others. Letters of apology for absence were read from Provost Watt, Haddington; Messrs. H. B. Baildon and J. B. Stephenson, Edinburgh. There was a very good assemblage of ladies and gentlemen. From 8.30 to 9.30 Mr. Shepherd's band played a programme of music. The chairman, in the course of the evening, gave an address, in which he pointed out that the association had a larger working membership than any similar association in the United Kingdom. Their confrères in London, he said, got contributions to their work from outsiders, whereas they in Edinburgh had their work done by the members, and thus their association was intensely individual and personal. Thereafter a very enjoyable concert programme was gone through. At the close of the concert refreshments were served in a side room; and the hall having been cleared, about sixty couples remained to enjoy a short programme of dances. Mr. W. C. Baker ably acted as M.C. The hall was tastefully decorated with plants kindly lent by James Buchanan, Esq.; and Messrs. Baildon & Son, Duncan, Flockhart & Co., and J. Mackay & Co. sent an ample supply of aerated waters. The conversazione has formerly been held at the close of the session; the change of time seems to have given satisfaction. A little festivity in association matters as well as in private circles is seasonable towards the end of December.

A meeting of the association was held on Wednesday, December 21, under the presidency of Mr. George Coull, who started the proceedings by reading some notes on the recent apprentices' prize competition, in which he gave the younger members sage advice as to how they should work. Mr. Wm. Duncan followed with a note on the reduction of ferric chloride to the ferrous state by pepsine and allied substances. Mr. J. T. Grant read a note on ipecacuanha wine; and Mr. John Findlay communicated a lengthy paper on gelatine pill-coating.

ELGIN.

THE CHEMISTS' ASSISTANTS AND APPRENTICES' ASSOCIATION held a meeting on December 23, when Mr. A. McCulloch read an interesting paper on pharmaceutical curios, in which he exhibited and described some of the more important recent additions to materia medica, such substances as strophanthus and coca being amongst the number.

NEW COMPANIES.

JENSEN ELECTRIC BELL AND SIGNAL COMPANY (LIMITED).—Capital, 100,000*l.*, in 1*l.* shares. Object—to acquire the patent rights of Jensen's patent electric bell and signal system for Great Britain and its possessions, and for other countries.

PONTIFEX & WOOD, LIMITED.—Capital, 100,000*l.*, in 1*l.* shares. Object: to carry on the engineering business of Messrs. Pontifex & Wood, at Shoe Lane, Millwall, and elsewhere. The subscribers are: Mr. E. A. Pontifex, Mr. E. L. Pontifex, Mr. M. Pontifex, Mr. H. W. Neild, Mr. C. Major Dain, Mr. W. Scott Metzner, and Mr. S. Pitt. The first directors are: Messrs. E. A., E. L., M., and W. Pontifex, and Mr. A. J. King.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

THE ACADEMY OF MEDICINE, at the annual election of officers, selected Dr. Perrin for its vice-president, and continued Dr. Proust for another year in his functions of secretary. According to rule, Dr. Hérard, the present vice-president, will be the president next year. Dr. Bergeron remains perpetual secretary.

A BOTANICAL MISSION.—M. le Comte Horace de Choiseul, a botanist of some note, has been sent on a mission to Asia and the United States. He is to examine the botanical gardens and collections of Ceylon, Calcutta, Shanghai, Japan, and San Francisco.

NO STUDENTS FOR THE MARINES.—By order of the Minister of the Navy no medical or pharmacy students shall hereafter be allowed to join the marine corps with a renewal furlough while they complete their studies for the diplomas of doctor of medicine or pharmacist of the first class. Such young men may join the army or navy, but the marines will not have them.

DECREASING INCOMES.—Owing to the conversion by Government of the 4½ per cent. loan into three per cents., the prizes offered for essays in pursuance of some legacies will have to be reduced in amount by the Academy of Sciences. For instance, the Ciprieux (1,000*fr.*) prize will only be worth 800*fr.* Other prizes will be decreased proportionally, and other scientific as well as literary associations will have to take similar action.

A MAMMOTH SKULL AND BONES have been found within the Paris city walls. While digging in the Northern cemetery for the abutments of the Avenue de Clichy viaduct, now building, the workmen unearthed a whole skull and some bones of the *elephas primo genius*. The molar teeth weigh more than 11 lbs. apiece, and the enormous tusks are placed two feet apart in the skull. The discovery has stirred up the Paris scientists, who hope to obtain the remainder of the skeleton.

AN INTERNE PHARMACIST BEFORE THE ASSIZES.—M. Pasturot, an interne in a Paris hospital, last August sent to a friend outside two bottles of nice-tasting elixir or cordial of his own make. Unfortunately the alcohol used for it was the property of the hospital, and the messenger was caught with the bottles by the janitor, and arrested. On searching the interne's room some opium was found, as well as some drugs of little value. The hospital board, who wink at large frauds, made much ado about this trifling affair, and M. Pasturot managed to be sent before the assize court, where he would have a jury, instead of the Correctional, where judges convict right and left. On trial he proved that the opium and the other drugs came from his father, a pharmacist, and the jury found the other damages so ridiculous that they acquitted him without leaving their seats. The happy ending shows the pharmaceutical usefulness of juries, for the Correctional tribunal—such is the force of habit—would have been sure to impose a fine, with perhaps some little imprisonment.

THE GOBELINS TAPESTRY WEAVERS are dissatisfied with their salary, and are petitioning the Minister. Through their complaint, a somewhat lengthy document, an insight is afforded into the workings of the celebrated manufactory. The total budget, it seems, is only 230,000*fr.* The director's salary is 9,000*fr.*, the accountant's 4,500*fr.*, and the clerk's 3,500*fr.* The establishment has also two chemists—M. Chevreul, who gets 4,000*fr.*, and M. Decaux 2,400*fr.* a year. The workmen proper, not to speak of the apprentices, are paid 3,000*fr.* with lodging. They work six hours a day in winter and seven and a half in summer, the exhausting and artistic character of the labour rendering longer hours impossible. Now the workmen want better pay, of course, but they also ask for a change in the management, and also for the retirement of the two chemists, who, they think, should make room for younger and more active men, who would infuse some new life into the concern, renovate old methods and increase the sphere of usefulness of an establishment gone to sleep. Perhaps they are right as regards M. Decaux, who is past seventy years of age; but they must be wrong

about the centenarian chemist, who remains always young, or at least feels so, for he has never yet resigned a position willingly.

PICRIC ACID AS AN EXPLOSIVE.—At the sitting of the Academy of Sciences held on December 12, Professor Berthelot read a paper on the various modes of explosive decomposition of picric acid. Prefacing with an exposition of the general belief in the explosive property of the chemical, and alluding to Colonel Majendie's report on an explosion of recent occurrence in England, he related the following experiments. When a certain quantity of picric acid is heated in an open flask or capsule it first melts, then volatilises, giving out fumes which burn with a smoky flame, but no explosion takes place. But when a test-tube, about one inch in diameter, is heated over a gas jet so as to produce a visible red, but without melting the glass or deforming the tube, on dropping into it some crystals of acid weighing only a few milligrammes a sharp detonation occurs, with a bright white light and characteristic noise. When the experiment is performed in nitrogen gas, a few flakes only of carbon are deposited; in ordinary air the result is the same, but no carbon is left. On increasing the quantity of picric acid, without, however, exceeding a few centigrammes, the addition may cool the bottom of the tube sufficiently to prevent immediate detonation, but the chemical is at once volatilised, and soon an explosion with flame occurs, occupying a great part of the tube. This explosion is not so sharp as the more local detonation, and more carbon is apparently deposited. An explosion of the nature may be produced with a few milligrammes of material by using a glass tube coated with the carbon of a previous explosion. With a decigram of acid and a new tube the reaction will be slower still, yet a series of deflagrations with red flame will be observed, while the vapours will catch fire at the mouth of the tube. Finally, with larger quantities the acid is decomposed, there being abundant fumes and partial volatilisation, but without deflagration. Other nitrogenised bodies, less oxygenated than picric acid, such as nitro- and bi-nitrobenzene, nitronaphthalines, &c., were experimented with, and afforded concordant results, leading to the conclusion that the mode of decomposition of all these nitrated bodies depends on the initial decomposition temperature. Respecting picric acid more especially, M. Berthelot's conclusions are as follows:—"Should a nitro-compound, such as picric acid, while burning in the air in large masses, happen to heat the sides of the containing enclosure to a degree sufficient to induce incipient deflagration, the deflagration might contribute to further increase the temperature of the enclosure, and the phenomenon might occasionally be transformed into a detonation. It would even suffice that the detonation should occur in an isolated point, either during a fire, or owing to the local overheating of a boiler or apparatus, to enable it to originate the explosive wave and propagate itself by influence throughout the whole mass, causing a general explosion."

Gazette.

PARTNERSHIPS DISSOLVED.

COCKROFT & PICKLES, Birkenshaw, Yorkshire, mineral-water manufacturers.

GRIMES, A., & SON, Bury, drysalter; as far as regards F. Grimes.

HIGGIN, W. & A., & Co., Manchester, manufacturing chemists; as far as regards W. S. Higgin.

JESSOP, A., & SONS, Rowley Hill, near Huddersfield, firework manufacturers and pyrotechnists.

MEADOWCROFT & LAW, Blackburn, aerated-water, fruit syrups, and cordials manufacturers.

MILNE, W., & WRIGHT, J., Farnworth, near Widnes, and Manchester, under the style of the Farnworth Pith and Size Company, manufacturers of prepared pith, glue, size, &c.

PRENTICE BROTHERS, Stowmarket, manufacturers of chemical manures and other chemical products and artificial manures; as far as regards Ernest Prentice.

REYNOLDS & BAILEY, Stapleton Hall Road, Stroud Green, physicians and surgeons.

TRIBE & HOLROYDE, Chatham, surgeons and apothecaries.

THE BANKRUPTCY ACT, 1883.

ADJUDICATIONS.

DEACON, HENRY PELHAM, Willesden Lane, Willesden, lately in partnership with C. C. Dickson, surgeon.

DENMAN, FRANCIS PHILIP, Burdett Road, Limehouse, Bow Common Lane, and Duckett Street, Mile End Road (formerly of Edinburgh, Glasgow, Paulet Road, Brixton, and Elgin Crescent, Bayswater), physician, surgeon, and accoucheur.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

BLAKE, JOSEPH NICHOLSON, Sheffield, and Eyam, Derbyshire, surgeon. Discharge suspended for one calendar month.

CARTER, GEORGE ROE, Anerley Road, Penge, Surrey, physician and surgeon. Discharge suspended for seven days.

MOORE, JOSEPH, Beulah Road, Thornton Heath, doctor. Discharge granted.

NOTICES OF DIVIDENDS.

FLEMING, ERNEST LAREMONT, Liverpool, borax manufacturer. First and final div. of 10*l.*, any day, Mr. H. D. Eshelby's, 24 North John Street, Liverpool.

MANGLES, JOHN (trading as John Mangles & Co.), Dißbury and Manchester, drysalter. Supplementary div. of $\frac{2}{3}$ *d.*, December 28, Mr. J. Eckersley's, 46 Pall Mall, Manchester.

BANKRUPTCY REPORT.

Re **ALBERT AUGUSTUS CURTIS**, Gloucester and Sharpness, Chemist and Druggist.

THE official receiver's summary of this debtor's statement of affairs shows that the total liabilities are 2,530*l.* 19*s.* 10*d.*, of which 300*l.* is partly secured. The bankrupt estimates the value of his stock-in-trade at 1,000*l.*, fixtures, &c., at 500*l.*, furniture and other property at 460*l.*; but the whole is expected to realise only 665*l.* Book debts, doubtful and bad, amount to 104*l.* 3*s.* 3*d.*, and the good are valued at 41*l.* 5*s.* The total assets thus amount to 706*l.* 5*s.*, and as the preferential claims are 112*l.* 15*s.* 4*d.*, the deficiency is 1,674*l.* 14*s.* 10*d.* The bankrupt attributes his failure to want of capital, bad debts, and general depression of trade. The following are among the principal creditors:—

	£	s.	d.
Barrett's Bottling Company (Limited), Bristol ..	44	10	8
Beale, A. W., Gloucester	52	0	9
Billings, Son & Co., Birmingham	10	14	10
Carrington & Co., Gloucester	23	12	6
Clements & Co., Bristol	44	10	8
Curtis, Mrs. Albert Augustus, Gloucester	348	2	0
Evans, Lescher & Webb, London	35	17	4
Hyett, J., Gloucester	15	3	8
Lambert & Butler, London	13	2	0
Stephens, N., Higham	45	0	0
Sutton & Co., London	103	14	3
Underwood, H. J., Gloucester.. .. .	10	1	11

At the first meeting of creditors Mr. W. C. Hardman, of Brunswick Road, Gloucester, was appointed trustee, with a committee of inspection, and the bankrupt's public examination stands adjourned to January 18 next.

SENSITIVENESS OF TASTE.—According to Dr. F. P. Venables the following are the limits of tastes for the following substances in aqueous solution:—Sugar, 3-1000ths of a gramme barely tasted; common salt, 1-1000th of a gramme barely tasted; tannin, 2-10,000ths tasted, 1-10,000th failed to taste; hydrochloric acid, 1-10,000th of a gramme barely tasted; saccharin, 5-1,000,000ths of a gramme barely tasted; strychnine, 5-10,000,000ths of a gramme barely tasted.

TRADE-MARKS APPLIED FOR.

THE Trade Marks Journal publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." The address of the Patent Office is Southampton Buildings, London, W.O.

From the "Trade Marks Journal," December 14, 1887.

- "JUBILEE BEVERAGE. KOH-I-NUR"; for an aerated beverage. By H. Cochrane (trading as Cantrell & Cochrane), Dublin. 63,153.
- "TIP-TOP," on figure of a top; for blacking, furniture cream, &c. By J. W. Houldsworth, chemist, Hickmond-wike. 64,473.
- "MUEPHROSINE," and other wording; for a sleep tonic. By S. Ratti & Co., 3 Jeffrey Square, St. Mary Axe, E.C. 64,675.
- "DAWSON'S HOP ALE," and other wording, on label; for hop ale. By G. H. Dawson, Union Stores, Meadow Lane, Leeds. 64,811.
- "TAREUE," and monogram, on fancy label; for a toilet soap. By Scott & Co., 28A Cebalgrove Road, Morning Lane, Hackney, E. 64,856.
- "SANDRINGHAM"; for kid-revivers, and the like. By Mary A. Martindale (trading as Nicholas Martindale), 17 Hanover Street, Liverpool. 65,761.
- "SLADE'S SHEEP-POWDER"; for a sheep-powder. By J. Slade, Tenbury. 65,811.
- "EAU DE SELTZ COMPANY," and figure of a tree; for mineral and aerated waters. By the Eau de Seltz Company, Baker Street, Liverpool. 66,275.
- Deerhound's head, and name of depositor; for mineral and aerated waters. By R. Foote, 40 Brownlow Street, Liverpool. 66,373.
- "FRENCH PILLS, FOR LADIES ONLY," and other wording, on label; for pills for women. By A. P. Faucher (trading as F. P. Auguste), 18 Rathbone Place, W. 66,451.
- Heraldic design, with motto, "Ingenuity, industry, and integrity"; for mineral and aerated waters. By Joseph Dards, 71 London Road, Southwark, S.E. 66,855.
- "V. V. F.," on label, with border of rose petals; for essential oils, &c. By Warrick Brothers, Old Swan Lane, E.C. 67,182.

From the "Trade Marks Journal," December 21.

- "GLADSTONIAN"; for perfumery. By J. Crosfield & Sons, Warrington. 61,977-8.
- "THE SERVANT'S FRIEND, OR PURE MEXICAN BLACK-LEAD," and other wording; also "Nickel Silver Black-lead," and other wording, on labels; for blacklead. By J. Johnson & Co., 79 St. Anne's Street, Liverpool. 63,592-3.
- "GOLDEN QUEEN"; for chemical substances (Classes 2 and 3). By Hodgson & Simpson, Wakefield. 63,656-7.
- "SEA-BREEZE SALINE," and a sea view, on label; for a medicinal preparation. By T. E. Butler & Son, chemists and druggists, Leicester. 64,087.
- "SUPERFINE EOSINE," other wording, and African scene, on label; for aniline dyes. By Volkart Brothers, Winterthur, Switzerland. 64,437.
- "BORAX," and other wording; for antiseptics. "Borax," and other wording; for household and laundry preparations. "Borax," and other wording; for perfumery. A woman's head, with "Borax" on margin round it; for soaps, &c., and perfumery. By J. Ascough, Wandsworth. 64,538-42.
- "VANGUARD"; for perfumery (65,469). "Echo"; for perfumery and soaps (65,472-73). "Perfection," in rope

border; for perfumery and soaps. By J. Crosfield & Sons, Warrington.

"NUDA VERITAS"; for a hair restorer. By T. A. MacMahon, L.R.C.P. and S., 8 Mountjoy Place, Dublin. 65,537.

"CEDRALINE," and signature of depositor; for a chemical preparation for protecting the skin against the bites of insects. By T. G. Gibbons, pharmaceutical chemist Manchester. 65,680.

"VELVET," and other wording; for gold prepared for dentists' use. By the S. S. White Dental Manufacturing Company, Philadelphia, U.S.A. 66,314.

Heraldic design; for mineral and aerated waters. By Peter Thornton, Thorney Terrace, South Shields. 66,623.

Two bottles crossed and a figured shield, with the word "Progress"; for mineral and aerated waters. By E. L. and N. Newsome, Blackpool. 67,056.

"GIANT"; for common and perfumed soaps. By R. L. and E. G. Hattersley and W. Clough (trading as the Lion Soap Company), Bradford. 67,085.

"NUTRITIVE BALM," and signature of depositor; for a preparation for the hair. By G. V. Bull, chemist, Banbury. 67,374.

From the "Trade Marks Journal," December 28.

Figure of an equestrian statue; for aerated waters. By T. and J. T. Linsley (trading as Thos. Linsley & Co.), 7 Dagger Lane, Kingston-on-Hull. 64,881.

"XENOPHON SOAP"; for common and perfumed soaps. By W. Kingham & Sons, Farnham. 65,009-65,011.

"JOHN ROTHWELL'S AERATED JUICE OF LIME," and figure of a sheep, on round label; for an aerated water. By J. Rothwell, 11 Mayor Street, Bolton. 65,304.

"SACOSA," and the same, with other wording, on fancy label; for plate powder. By Coffin, Redington & Co., 72 John Street, New York. 65,348-9.

"PANIER BROT," with border of poppies and wheat ears; for a food for human use. By C. Kranz, 2 The Parade, Forest Hill, S.E. 65,381.

Figures of two children and two foxes playing at see-saw; for teething, soothing, and cooling powders. By J. D. Fox, manufacturing chemist, Fox Street, Bingley, Yorks. 65,645.

"MILLS'S SOFT-WATER SALT"; for a washing powder. By W. Mills, 232 Friern Road, S.E. 66,074.

"SPARKS," over figure of an anvil, with hammer, &c.; for medicines for animals. By R. L. Cassie, 49 Newgate Street, E.C. 66,833.

"HORACE WATSON'S FAMILY PILLS," and signature; for pills. By H. Watson, Laceby, near Grimsby. 66,906.

"GARRARD'S MOLE EXTERMINATOR," on round label; for a vermin powder. By G. Garrard, gentleman farmer, Haughley, Suffolk. 66,991.

"NEOSOTE"; for chemical substances used for disinfectants. By A. H. Allen, Surrey Street, Sheffield. 67,165.

"DR. RICHTER'S PENANGO LOZENGES"; for medicated lozenges. By Dr. F. A. Richter (trading as F. Ad. Richter & Co.), London and Rudolstadt (67,257). Also "Dr. Richter's Tamaroni"; for large lozenges, medicated (67,545), and "Dr. Richter's Congo Pills"; for pills for human use (67,546).

"ICHTHYOLODIN"; for chemical substances for use in medicine and pharmacy. By Ichthyol Gesellschaft, Cordes, Hermann & Co., Germany. 67,261.

"ACME VITRO"; for varnishes and mineral dyes. By J. A. Bigsby, 3 Chichester Villas, Lower Road, Deptford. 67,378.

Figure of an ostrich; for chemical substances (Class 1). By W. Marsh, Ash House, Chapel Road, Sale. 68,019.

"PHENIX"; for electrical surgical instruments. By T. Walker & Sons, engineers, 58 Oxford Street, Birmingham. 68,132.



EUREKA COMPANY'S DAIRY REQUISITES.

WE have examined the cheese and butter colourings and the cheese rennet made by this company. The rennet is a powerful curdling agent, free from objectionable odour and brilliant in appearance. The cheese colouring is a carefully prepared solution, not too alkaline, and containing a large quantity of colouring matter. The butter colouring is prepared by the Danish process, and does not colour the milk—only the fat globules. It imparts a rich colour to the butter. These articles are worth the attention of country chemists who buy in bulk. The agents are Messrs. Johnsen and Jörgensen, Jewry Street, E.C.

DISINFECTANT CANDLES.

WE recently referred to the paper by Messrs. Casson and Brown on a new way of combining antiseptic materials in candles, and since then we have had an opportunity of putting the candles to practical test. In appearance the candles do not differ from ordinary ones; they burn without guttering, and as they burn they give off the odour of phenol and iodine, but not in so abundant quantity as to make the atmosphere of a room unpleasantly medicinal-like. The powerful antiseptic character of phenol and iodine is well known, so that the efficacy of the candles as a disinfectant is obvious; but we may explain that the phenol and iodine do not exist in the candles in the free state, but in the form of iodo-salicylic acid (not iodoform and salicylic acid, as has been stated); and this acid, on decomposition by the heat of the burning candle, yields iodine and phenol in gaseous form. The idea is a happy one and deserves success. The makers of the candles are the Dee Oil Company, of Saltney and 38 Leadehall Street, E.C.

PINOL.

UNDER the name of Pinol, Messrs. Burroughs, Wellcome & Co. have brought to the direct notice of the medical profession the volatile oil of the *Pinus Pumilio* leaves. They state that the pine from which the oil is distilled grows at high Alpine altitudes in regions of perpetual snow, and is only a small shrub. Daily the mountaineer climbs the heights and brings down a load of the pine boughs upon his back, a quantity little more than sufficient to yield a small bottle of the essence. The oil is certainly a very pure one, and is being largely used at present by throat specialists and other practitioners, the object of the firm being to make pinol a reliable therapeutic agent rather than a popular remedy. The firm also put up Extractum Pini Pamilionis (Burroughs), which is used along with lanoline for skin affections, as well as for the baths of the hydro-therapeutic treatment.

Personalities.

MR. HUGH MCCALLUM, pharmaceutical chemist, lately Government analyst for Hong Kong, has been appointed to a higher position in the public health department of the colony, and is to lecture on public health in the new Medical College at Hong Kong. Mr. McCallum is at present in this country on leave of absence for eighteen months. Part of this time he proposes to devote to work in sanitary science, under Sir Douglas MacLagan, at the Public Health laboratories of the Edinburgh University.

DR. TANNER AND THE CHEMIST.—The Cork correspondent of the *Times* states that the Mayor of that city and Dr. Tanner, M.P., are leading gangs of the unemployed through the streets with a view to intimidating shopkeepers into selling Nationalist newspapers. A few days ago, he says, the Member for Mid-Cork entered the premises of a respectable chemist in a leading thoroughfare, followed by a group of men. He handed the proprietor a copy of a placard announcing that the several Nationalist newspapers "are on sale here." The chemist took the poster and tore it in fragments, and the following dialogue ensued:—Dr. Tanner: Then you refuse to put it in your window? The Chemist: Certainly. Go and mind your own business, if you have any. It is fellows like you who are ruining this country. Dr. Tanner: I will never darken your doors again. Make out my account at once. Chemist: Certainly; quicker probably than you will be able to pay it. The Member for Mid-Cork then retired.

WILLS.

The will of the late John Rowland Sturton, chemist, who died September 24, 1887, has been proved at Peterborough, under 8,400*l*. The executors are the widow, Mrs. Eliza Sturton, Mr. Frank Gilbert, nephew of the deceased, and Mr. G. Keeble, junr. The testator leaves the widow all household goods, &c., and on re-marriage 1,000*l*.; the business is left in trust until the two eldest sons are qualified to take it over, on terms which are specified in the will.

The will of the late George Bell, chemist, of Hexham, has been proved at Newcastle-upon-Tyne, under 10,988*l*. The executors are the son of the testator, Mr. Geo. Bell, and Mr. W. Shanks, of Houghton-le-Spring. The whole of the real property and personality is bequeathed to the eldest son, with the exception of five shops in Hexham market-place, and three fields, which are left to a married daughter and her issue.

Mr. William Stubblefield Barton, of 1A Moreton Street, Pimlico, who died September 24, 1887, left his wife sole executrix and sole legatee of his real and personal property, with the exception of one-half of the proceeds of the sale of his business, which sum is to be divided equally amongst his surviving brothers and sisters.

Obituary.

CARY.—On November 16, Mr. Oswald Richard Cary, Oldham Road, Miles Platting, Manchester, chemist and druggist. Aged 43.

JUDD.—On September 12, whilst on a voyage to Australia, Mr. Henry Judd, late of Regent Square, London, chemist and druggist.

STEDMAN.—On December 22, Mr. William Stedman, High Street, Ashford, chemist and druggist. Mr. Stedman had been in business in the High Street about thirty-five years. He had taken an active part in the public and religious affairs of the town, and was well known in the locality as a well-informed naturalist. His health had been failing for some time, and on the evening of his death he was seized with an apoplectic fit, and died in a few hours.

STENHOUSE.—On November 14, Mr. Robert Stenhouse, Arlington Street, Glasgow, chemist and druggist. Aged 53. Mr. Stenhouse was assistant secretary to the North British branch of the Pharmaceutical Society, under the late Mr. John Mackay, a position which he held for about eight years.

SYLVESTER.—At Trowbridge, on Christmas day, Mr. George Sylvester, M.R.C.S.E., in his 100th year. The deceased was regarded as the oldest medical practitioner in England. He passed through the Surgeons' Hall in 1810, and gained much experience in Guy's Hospital and St. Thomas's Hospital, London. He afterwards went into the navy medical service, and received a medal for his active work therein. Mr. Sylvester was registered as having been in practice before August 1, 1815.

WALLACE.—On November 10, Mr. James Wallace, Wombwell, near Barnsley, chemist and druggist. Aged 43.

AT THE COUNTER.

MULTUM IN PARVO.—Small Boy: "Mother wants a penn'orth of pills for pains in the head and stomach and can't sleep at night."—*Blue Bonnet*.

LADY CUSTOMER: "A packet of Gayetty's paper."
Absent-minded Chemist: "Gayetty's paper—let me see what it is for, please?"—*Blue Bonnet*.

AN order requiring "1d. of burn 'em hot" was presented to a chemist in a western suburb last week, and the bearer was sent away with a small quantity of essence of bergamot.

CONTAINS A STING.—Customer: "Please, sir, can you change me a sovereign? [Change given.] Thank you, sir; I thought I would not fail at the chemist's. One might as well try and fly as get the change of a threepenny bit from the other shops; they grudge the time so."

GLASGOW DRUGGIST TO SERIOUS LITTLE BOY.—Druggist: "Why are you not at the school to-day, Alick?"
Alick: "I had tae bide at hame and watch ma wee sister."
Druggist: "Aye! and what's wrong with her?"
Alick: "She's no weel. The doctor says her constitution's gaen doun intae her legs, and she canna walk."

LADY (handing prescription ordering pil. aloes et ferri gr. vj. mitte iv.): "Make up this prescription, please. How much will they be?"
Chemist: "Sixpence."

Lady (astonished): "Oh! dear no! they will be more than that; that is one of Sir William Gull's prescriptions."

A HAMPSHIRE CORRESPONDENT (25/70) sends the following order, for which sem. hyoscyam. was supplied:—
"please Sir will you send me 6 peneth of Argue poison for to cure the teeth ake it is some stuff that you put in the fire and olds abason over the smoke and then puts hot water in it and olds the mouth over it."

A FIRM at Harrogate send us the original of the following order:—

- 2 peny worth of each
- 2 ganegno ashram
- 2 Red lavender
- 2 Silver tatley

We presume tinct. guaiaci, tr. lavand. co., and sal volatile were supplied.

A MEDICAL ERROR.—A chemist in a northern suburb reports the following incident:—A doctor, in a confidential chat with a lady patient, told her that she would save a considerable sum by dealing with a certain cheap drug store. She duly took his advice. Some time after, meeting her, the doctor observed that he had not seen her lately; hoped her condition had improved. "Yes," she replied; "thanks to your very good advice, I have found the drug store, and also a doctor who will give me medical attention with medicine for 6d." Collapse of doctor, who had been receiving full fees, on and off, for eighteen years.

AN American pharmacist has about 60 feet of pickled tapeworm coiled up in a bottle on his show-case as an advertisement of the virtues of a tapeworm specific. One day this became the object of the inquisitive attention of a lady, who, after gazing thoughtfully at it for a minute, inquired of the assistant—

"What are you charging for it?"

"It is not for sale," he replied.

"Haven't you got it in dry form?"

"No, madam," he replied; "it would spoil. That is the only way to keep it; and most people pay money to get rid of it, instead of buying it, as you wish."

"That's strange. I have to pay 16c. a pound for my macaroni."

FROM MELBOURNE (AUSTRALIA).—Scene: Chemist's shop in the suburbs. [Enter lady customer.]

L. C.: "I want a packet of Fauleoner's Worm Powders, please."

Chemist: "Yes. One and sixpence, please."

L. C.: "I find them very good for ringworm; they cured my son in a few days the last time he had it."

Chemist: "For ringworm! Are you not making some mistake?"

L. C.: "Why? Ain't these worm powders?"

Chemist: "Yes; but are you going to rub them on outside?"

L. C.: "No; I'm going to give him one in the morning, fasting. Rub them on outside!" [Exit, smiling contemptuously.]

Chemist: "Swallow powders for ringworm!" [Also smiles contemptuously.]

THE following "orders" are preserved in the scrap-book of an old-established firm in Edinburgh. The first is written in a neat, distinct hand; in the second the caligraphy is quite on a par with the spelling and composition:—

"Der Sir

Please Give the berer Miss — 2 Pence worth of Poisons for she is infested with Rats you need not fear to give it her as she is an upright Person

"M. D."

(Lord Randolph might consider the above a serviceable illustration when engaged on his "Mission.")

"Der Sir

A. Oct. 18—

"I write you these feu Lines To see if you be so kind as to send me some Sulphed of carrabon and by sending it by the return of the first possit I enclose you ten possitage stamps so you my send sixpenseworth of sulphed of Carrybon to mix Gutty Pereha with and by sending through by Possit I will fell very much oblige To you by doing so so be you sure and send it it by the return of the first possit and by doing so I will be very much oblige To you by doing so I have no more to say at presend but still remains yours truly and wellwisher. Adress me as follows

"Please send it by return of possit and put it in a small vial and send it away and I will pay the carriage when it comes."

"THE AMERICAN DRUGGIST" gives some extracts from the scrap-book of a Cambridgeport pharmacist. The following are the best:—"Send me some of the essence you put people to sleep with when you cut their fingers off." That evidently means ether. "I want something to take tobacco out of my mouth." Of course, the scent of tobacco was the thing objected to. "Send me a baby's top to a nursing-bottle" means, without doubt, a nursing-bottle top. "An ounce of the smelling stuff that goes through your brain" describes very well the effect of inhaling ammonia. "Something for a sore baby's eye" is not easy to mistake, though stated rather oddly. Here is a startling order for "enough ipecac to throw up a girl four years old." We cannot help sympathising with the person who asks for "enough anise seed to take the twist out of a dose of senna." Here is a graphic description of a certain ailment in a request for "a plaster for a man kilt with stitches." Perhaps the one who wrote this order for "something for a caustic woman" built better than he knew. Here is a request for "something to knock a cold out of an old woman." The next one seems to be in hard condition. She desires "something for a woman with a bad cough and cannot cough." No druggist would hesitate for a minute to fill this order: "Something, I forget the name, but it is for a cure." "Our own preparation" will just fill the bill in such a case. But what would we send for "a swelled woman's foot," "a man with a dry spit on him," and "a woman whose appetite is loose on her?"

BRITISH AND FOREIGN CONSULS' REPORTS.

STRAITS SETTLEMENTS.

Gum Copal. The copal shipped from Singapore is found in deposits or layers near the surface of the earth on many of the islands of the Malayan Archipelago, prominently in Celebes, Timor, and the Moluccas (much of it comes from Ternate, Amboyna, and Macassar); also from Borneo, Java, Sumatra, and the Malay peninsula. Gum copal arrives at Singapore raw, just as it is dug up by the natives, with earth and ground adhering to it, and has to be cleaned and "chipped" before being exported. The "chips" and dust are occasionally also exported, as they contain a fair percentage of pure gum. It is curious to note in the colonial trade statistics what effect this "cleaning process" has on the weight and value of the article between imports and exports, as follows:—

	Imported		Exported	
1884	Pic. 23,037	\$145,708	Pic. 23,917	\$153,745
1885	19,864	153,600	19,779	168,927

These are certainly very strange figures, even if some old stock from 1883 was exported in 1884, or quantities were received from native prahns without being reported at the import bureau, since it cannot well be accepted that at the end of 1885 any stock was held for exportation in 1886, and one wonders how the "dust and chips" are accounted for, considering that, as per statistics, 795 piculs were exported in excess of receipts. The excess of the export values, though very large, is easier explained, *i.e.*, in charges of receiving, shipping, weighing, cleaning, packing, shipping, insurance commissions, &c. The statistical figures show that the average import price was \$6.97 $\frac{3}{4}$, and the average export price was \$7.52 $\frac{1}{2}$ per picul. This is probably owing to the fact that the gum sometimes arrives here so full of foreign adhesions as to command only from \$4 to \$5 per picul, the price of the best being at present about \$11. The margin is thus very great, and the room for imposing and cheating in exports also. Copal importers can therefore not exercise too much care in their purchases, and it is probably best to buy it on commission in the uncleaned state from first-class firms only, and to have it cleaned at home.

Gum Benjamin. This gum is received principally from Sumatra and Siam proper, with a little from the Coromandel and the Philippine Islands. Its vapour being very aromatic, it is used in places of worship by Christians, Islamites, and Pagans alike as incense, and many natives of Asia, who can afford it, burn it to give fragrance in their dwelling-houses. The imports and exports were as follows:—

	Imported		Exported	
1884	Pic. 7,312	\$233,900	Pic. 7,112	\$235,638
1885	7,423	206,768	7,383	217,066

The exports go to nearly all the countries in Europe, the United Kingdom receiving by far the most. They were:

Year	Exported from	Quantity	Value
1884	Singapore	Pic. 1,687	\$110,921 00
1884	Penang	436	19 173 00
1885	Singapore	2,307	116,514 00
1885	Penang	1,228	55,905 00

Preparation of Dragon's Blood. Dragon's blood is the product of the province of Djambi, in Sumatra, and, to a slight extent, of parts of the west coast of the Malay peninsula, north of Province of Wellesley. The article comes into the market prepared and put up in two different ways, *viz.*, in cakes or lumps about 1 $\frac{1}{2}$ in. thick, or in small tablets or sticks about 8 to 9 in. long, both tablets and sticks being well packed into palm leaves; to prevent it from running by the action of heat. It varies in price from \$20 to \$50 per picul, all depending on the purity of the article, since adulteration is resorted to, such as mixing brick dust or other foreign matter with the extract while still warm, before being poured into moulds. I have before me four samples, \$20, \$25, \$40, and \$50 per picul, respectively. The first is cake, and nearly as heavy as its volume in brick. By scraping it, it feels gritty, and the scrapings, when mixed with water and daubed over paper, give an uncertain dirty crimson colour, while it should be a good crimson, with a

light subint of purple. No. 2, looking like a thin plug of tobacco (about 1 $\frac{1}{2}$ by 7 in.), and wrapped into palm leaf, is purer, more solid, but not free from adulteration. No. 3 looks like a thin, long stick of liquorice, and has a palm-leaf wrapper over all, with both ends closely tied and thread wrapped over all the entire length. It is very solid, and said to be a special preparation by grinding up the extract with a little oil, which, it would seem, tends to give solidity when dry. Adulteration in this preparation would seem to me almost impossible, since by breaking a stick in two and holding a broken end to the light any admixture of any substance in the least rough and not exactly the same colour as the true extract would show itself. No 4 (at \$50) is in cake and looks different from all the rest. It comes from the Malay peninsula. In colour when broken it looks like dry blood, with a purplish subint. In rubbing it it feels as smooth as wax, and its volume is much lighter than No. 1, at \$20; it is no doubt pure and genuine.

Dragon's blood is not always abundant in this market. The imports and exports at Singapore were as follows:—

	Imported		Exported	
1884	Pic. 340	\$9,370	Pic. 280	\$9,567
1885	1,054	21,090	375	15,727

Gambier Cultivation. The cultivation of gambier here is entirely in the hands of the Chinese, and goes hand in hand, to a great extent, with pepper planting, as the decocted leaves of the gambier plant serve as fertiliser to the pepper vines. The demand for gambier has been on the increase for various reasons, chief among which, next to speculation, is that gambier exhausts the soil in a short time, needing frequent changing.

Gambier Adulteration. Adulteration is carried on to a large extent in the preparation of the article, and great frauds also committed by the Chinese middle traders, who supply the exporter with the marketable article already packed in matting, in square pressed bales or cubes. These frauds, which commenced a few years ago, have now assumed alarming proportions, and become the cause of much vexation and trouble to the European exporters, and discussions have taken place in the local Chamber of Commerce as to the best means to overcome the difficulty. But the merchants here appear to be powerless. The "Kougek," or Chinese gambier syndicates, simply say, "You must take it as we have it or you won't get any." No Europeans are engaged in gambier planting, and the exporter is forced to take it at the stipulated market prices, pay goodly commissions to his middle trader, and to ship it to his customers in Europe or the United States, knowing that the complaints of the latter will be well founded, and of course "the brunt of the fraud" falls upon them, and those that use it in manufacture. The bales of gambier brought to market in most instances contain admixtures of pieces of sticks, stones, clay, and lumps of pressed out gambier leaves.

TURKEY IN ASIA.

The Sponge Fisheries. Sponge fishing extends all along the coast of Batroon, Tripoli, Latakia, and the island of Ruad, north of Tripoli. It is not confined only to native fishermen, for many Greeks come over from Kalimno, Stanchio, Rhodes, and Samos, in their little crafts, to share this traffic with the Syrians. The catch commences in June and extends to October, this season being the most suitable owing to the calmness of the sea. The diver generally remains at the bottom of the sea from sixty to eighty seconds, unlike the Australian pearlshell fishers, who often remain under water for hours at a time. This is due to the fact that the native Syrian diver has simply an open net around his unprotected body and uses no instrument of any kind in collecting his sponges; he cannot be induced, like the Turks, to adopt the diving dress, or "Skafander." The depth to which Syrian divers descend is from 25 to 175 feet; below these depths no good sponges are said to be found. Three kinds of sponges are known here—prime, seconds, and the red ones, taken near Batroon. The latter are by far the best. They have to be cleaned and freed from sand and then pressed. The best qualities are exported from Beirut to Paris direct, the others go almost exclusively to Trieste, while the Greeks send their share of the catch to different markets in Europe. The average annual catch is estimated at about \$150,000 in value. The local authorities exact a tax of 10 p.c. from those engaged in the business.



Bench Book for Test-tube Work in Chemistry. By H. T. Lilley, M.A. Hamilton, Adams & Co. 1s.

INTENDED as a guide for students of elementary practical chemistry. The tests are arranged in the orthodox manner, and not so fully as will admit of the student working without a teacher. There is little new in the booklet, but several old and good things are not in it. It is printed on stout hand-finished blue paper, which will stand the wear and tear of at least one session's laboratory work. Apart from this arrangement there are dozens of similar books already in the market, and we had thought that there was no room for more.

Laws and Definitions connected with Chemistry and Heat. By R. G. Durrant, M.A., F.C.S. London. 1887. Rivingtons. Pp. x+99. 3s.

IN little more than half a dozen chapters the author of this volume succeeds in making clear to the pupil the meaning of the laws and principles upon which chemistry as a science is built. The first chapter gives the title to the work; the second treats of the laws bearing more directly on chemistry (such as the heat of chemical combination and the phenomena of solution); the third chapter is devoted to the laws which bear upon atomic weight, and the fourth supplements that by discussing the proofs for the assumption that "the molecule of hydrogen contains two atoms." The student is taken a step further in this important part of physical chemistry in the succeeding chapter, wherein the determination of the atomic weight of zinc is discussed in a practical and intelligible manner; then follow a chapter on vapour densities, and one on various classes of chemical compounds, the rest of the book being devoted to practical analysis and specimens of analyses, and how to record results. This is a book which we can recommend to all students of chemistry. They will find here explained at the outset those terms employed in the science which are difficult to grasp if they are not learnt at the beginning. Moreover, the author has adopted the reasoning method in writing the book, so that the student finds that he cannot pass a definition if he does not thoroughly understand it. This characteristic is a very valuable one in a book which treats of the principles of the science.

A Treatise on the Animal Alkaloids, Cadaveric and Vital; or, The Ptomaines and Leucomaines, Chemically, Physiologically, and Pathologically Considered. By A. M. Brown, M.D. London: Baillière, Tindall & Cox. 1887. 8vo. Pp. xv+182. 6s.

IT is a rare thing to find anyone attempt to write, far less publish, a scientific book, who systematically murders the Queen's English, shows ignorance of the most elementary chemical nomenclature, and who makes a perfect hash of the names of scientific authorities. Dr. Brown does all these in the most sublime fashion, for he adheres to no rule in his blundering, and succeeds in giving more variations in names for specific substances than the ordinary mortal could imagine to be possible. There are very few pages in the volume which do not contain an error of fact or fancy, and, taken as a whole, it is the most misleading and un instructive treatise which we have ever read. The surprising thing is that M. Armand Gautier should have been induced to write an introduction to the volume, in which he remarks that "the excellent work by Dr. A. M. Brown will have a very special interest for competent inquirers," and that "it will give a stimulus to investigations." This opinion may be accounted for by the fact that the greater part of the volume is a fulsome eulogium of M. Gautier and his work. Such work as he has done is, all will admit, most valuable to the human race. The discovery of the animal alkaloids and the investigation of their properties have, as we recently pointed out (*THE CHEMIST AND DRUGGIST*, June 11, 1887), a direct relation to the causation and treatment of certain

diseases. At present we may be said to be on the threshold of a new system of diagnosis and treatment. Granted that certain micro-organisms are associated with certain disorders of the body, it is highly probable that the products (leucomaines) which these micro-organisms are instrumental in creating are the direct cause of disease. The treatment which would appear to be most rational in these circumstances would consist in the administration of antidotes to the poisonous products. But our knowledge of the whole subject is far from being complete, and the memoirs on the the different ptomaines and leucomaines are scattered. Dr. Brown professes to have collected these, and to have shown the relation of the subject to scientific medicine. His treatise, however, is one which will not advance science or give him credit.

Qualitative Chemical Analysis. By Dr. C. Fresenius. Tenth Edition. Translated from the Fifteenth German Edition, and edited by Chas. E. Groves, F.R.S. London: J. & A. Churchill. 1887. 8vo. Pp. xv+481. 15s.

IT is eleven years since the last edition of this standard work was published, and during that time there have been many advances in qualitative analysis. These have had their influence upon the present volume, which is slightly bulkier than its predecessor, and has in several parts been entirely rewritten. Mr. Groves has proved an able editor; he has adapted the nomenclature of the work fairly well to the requirements of English readers, and has incorporated other valuable alterations. This is observable especially in the formulæ. The old notation still being extant in Germany, it, without the modern equivalents, would have been unintelligible to most students; hence, the modern formulæ are given after the old in blacker type. In the first part of the volume there are three sections. Section I. is devoted to the apparatus and explanations of the operations employed in chemical analysis; Section II. comprises descriptions of the methods for preparing and the uses of reagents; and Section III. (which is the bulk of the first part) deals with the reactions of bases (common and rare) and acids. The second part has also three sections and an appendix. The first of these is the practical process for the analysis of compounds and mixtures in general—in other words, analysis proper. The second comprises the analysis of such things as silicates; waters, natural, potable, and aqueous; soils, and special processes (toxicological) for arsenic, hydrocyanic acid, and the like. The appendix is devoted to alkaloids and a few glucosides. Those parts of the volume which treat of the analysis of inorganic bodies are noteworthy for the precision and utility of the analytical methods given. Special prominence is given to the more common tests, which, indeed, in most cases are sufficient for the detection of bases and acids; the utility of these is added to by the explanations of the influences which are apt to disturb or prevent the reactions. The value of the text in this part is considerably enhanced by the references to the original sources of corroborative tests. In the earlier pages of the volume, where apparatus is treated of, the author reproduces a drawing of Pohl's sulphuretted-hydrogen apparatus. This consists of an ordinary wide-mouthed bottle, with double-perforated cork. In one of the perforations is an exit tube for the gas; this is in two parts, viz.: a wide tube packed with cotton-wool in connection with the bottle, and in this a narrow tube bent at convenient angles. The other perforation of the cork is utilised for a glass rod, from which is suspended a perforated basket of vulcanite to hold pieces of sulphide of iron. When sulphuretted hydrogen is wanted this basket is lowered into the acid, and allowed to remain as long as need be. The appendix is chiefly taken up with the reactions of alkaloids, but, while the methods given are good, the list of bodies operated on is not quite complete from a medicinal point of view. Thus morphine and narcotine are the only opium alkaloids given; similarly quinine and cinchonine of cinchona alkaloids. To the former, codeine and apomorphine should be added; and in the latter group cinchonidine has become far more important than cinchonine, and both take a second place to homoquinine, the remijia alkaloid which accompanies quinine. Neither aconitine, cocaine, or pilocarpine is mentioned, although they are alkaloids of the first importance. Some extension, therefore, of this part of the work should be made in future editions.

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EDITORIAL NOTES.

1887—TAKING STOCK.

PHARMACEUTICAL POLITICS.

THE year which is now just passing into history has not been an uneventful one for British pharmacists, but its records are rather of failures than of successes. This, perhaps, would be a fair summary of every human effort, and of most men's lives. It is gradually shaped out of failures, and crowns them. It does not follow, therefore, that if no definite advance in our status or prospects has been established during the past twelve months that we have therefore failed to progress. None of us can have been so uninfluenced by the literature and oratory of this Jubilee year as to doubt now the reality of our improvement as a nation; and this improvement it is reasonable to believe that pharmacists have assisted, and in its advantages have shared.

The collapse of the Chemists and Druggists' Trade Association of Great Britain, after eleven years of good useful work, must take a prominent place among the events of the year. There was a gallant effort made by the few who looked beyond the immediate present to keep going an organisation which might be wanted at any moment, and which it was abundantly evident could not be called into existence for a sudden emergency. But the majority of chemists preferred to leave the evil day to take care of itself rather than to provide against it, and it was demonstrated that there was

not a sufficiently wide circle of supporters left to maintain the body in useful vigour, so that the resolution of its executive committee to wind up its affairs was all that remained for them as men of business to do. In the course of its history this association had done much for the trade; it certainly left things better than it found them, and to the few who planned it and worked it much honour is due. The experience gained by its active officers is still available to the trade in Haydon's Defence Agency, which has started on its foundations with good prospects of permanent success.

The scheme of the Pharmaceutical Council to obtain from Parliament power to enforce a compulsory curriculum of study previous to examination for qualification as a chemist and druggist was embodied in a short Bill, which was passed through the House of Lords without any discussion, but which afterwards met with sufficient opposition to prevent the success of the *coup de main* by which Dr. Farquharson endeavoured to dash it through the House of Commons. It was not considered that its chances of success were much improved by the attention which was bestowed upon it among those members of Parliament who regarded it from a perfectly disinterested point of view, while it cannot be said to have awakened anything approaching enthusiasm among any class of chemists and druggists outside the inner circle.

The Council of the Pharmaceutical Society of Ireland are getting ready a Bill for next session of Parliament, the object of which seems to be to cover, without remedying, their initial mistake of refusing to recognise the necessity of creating two grades of pharmacists to supply the needs of the country. Throughout a great part of Ireland poisons can only be obtained from persons who break the law in selling them. To prosecute such men would only expose the failure of the Pharmacy Act as it now stands, and it is therefore proposed to legalise the law-breakers up to the present time. The fiery opposition which the Council are meeting with from the druggists on the one hand and from their own members on the other hand is not perhaps so serious as it looks. It is likely that the moderate men in both camps, who are generally the majority—at least in other countries than Ireland—are fairly well satisfied with what the Council are doing, or at the worst indifferent.

By an action taken in Edinburgh, in February, the Pharmaceutical Council established, perhaps to some extent unintentionally, the very important interpretation of the law, that an unqualified seller of a poison is himself liable to the penalty fixed by the 15th section of the Pharmacy Act, no matter whether he sell on his own or on somebody else's behalf. Subsequently the Council undertook a much more important action in Edinburgh. It was understood that their legal adviser in Scotland believed he saw an opening in the armour of the limited companies who, in the North as well as in the South, have defied the Pharmacy Act, and have practically destroyed its effect. The House of Lords, in the famous case against the London and Provincial Supply Stores (Limited), had decided that an incorporated company was not a person, and did not therefore come within the prohibition of the 15th section of the Pharmacy Act. In the action brought against the Leith Depot (Limited), last July, the defendants were not the company *quâ* company, but the various persons, or some of them, forming the company. Sheriff Rutherford, who first heard the action, took the view very strongly that these persons had infringed the law, and he inflicted penalties upon them. This decision was very soon reversed on appeal to the Supreme Court of Scotland, and there was no chance of carrying that particular case further. Many people have thought that with so good an argument the contest ought to be again fought out in England, but the Pharmaceutical Council, who never seemed

to enter heartily into the spirit of the fight, have since dropped the matter.

The few hundred pounds which such a conflict would have cost would have been money well spent, even if the verdict had gone against the Society; for it would then have been quite clear that there was no means of making the Act effective without parliamentary amendment. The financial difficulty could scarcely have been the essential one, if we may judge from the lavish manner in which the Society's thousands have been poured out on the extraordinary Research Laboratory scheme. We have quite lately commented on the proceedings in regard to this development, and need say but little about it here. That little, however, is important. As well as can be gathered, the Society is committed to an expenditure of some fifteen thousand pounds at least, or about half its funds, on new buildings, which not only will bring no income back, but will necessarily cost much money to maintain. The best friends of the Society are astounded at the reckless way in which these responsibilities have been incurred by the present Council; and now that it has been semi-officially announced that the laboratory, which was the purpose of the whole expenditure, is to be abandoned, it is considered high time that some definite explanation should be put forward.

The Merchandise Marks Act and the Margarine Act, two of the legislative achievements of the parliamentary session of 1887, will, no doubt, go some way in promoting the honesty of the commercial section of the community. Sir John Lubbock's well-meant effort to increase the comfort of shop assistants by enforcing early closing was felt to be a little in advance of the time, and is suspended, at least for the present.

PHARMACEUTICAL CHEMISTRY.

In the technical matters of chemistry and pharmacy there have been few sensations during the year. For a time *drumine* excited interest as a probable rival to cocaine; but a few months in the early part of the year served to demonstrate that the substance only existed on paper, and that what its discoverer had obtained from *Euphorbia Drummondii* was calcium sulphate. There seems to be a fascination for medical men to discover rivals to cocaine, for the year closes with another discovery, by an American doctor, who announced some weeks ago the isolation from the leaves of *Gleditschia triacanthos* of an alkaloid some three or four times more powerful than cocaine as a local anæsthetic. This he called *stenocarpine*, but it has been proved to be a mixture of cocaine and atropine—evidently, therefore, a fraud. Still, it ought to be noticed that the *gleditschia* leaves are not quite destitute of alkaloid, for Dr. Willard H. Morse has obtained from them a base in very small quantity which "is not readily crystallisable, but occurs as a semi-liquid mass of a greenish tint. United with acids it forms greenish-white salts, tasteless, and apt to assume the form of four-sided prisms." This body has no resemblance physiologically to cocaine. Quinine has received its share of attention, chiefly in regard to the tests for purity, an error in the codex instructions having caused the Paris Pharmaceutical Society to appoint a committee of investigation, the point being to determine what was meant by "warm water" in the modification of Kerner's test. The result was a divided opinion, but ultimately a vote decided 68° C. as the temperature at which the quinine should be digested in water. Dr. de Vry has proposed a new test for this alkaloid, which is based on the comparative insolubility of chromate of quinine in water and the ready solubility of cinchonidine chromate therein. There has been the usual quota of controversial literature from this veteran quinologist and those who differ from him on moot points in quinology, the relative purity of light and

heavy quinine sulphate being one part of the dispute which has interested pharmacists generally; as a result we now know that quinine sulphate, practically free from other alkaloid, may be turned out of a light character. Cocaine has also been the subject of personal disputes as regards the nature of the amorphous substance which manufacturers isolate from the leaves in the course of manufacture, and with which some commercial specimens are contaminated. Dr. Stockman, Mr. W. C. Howard, and others pointed out that this was a solution of crystallisable cocaine in an amorphous alkaloid, called hygrine; subsequent investigations have corroborated this in the main, but it appears that cocaine and cocamine are the amorphous elements, although hygrine is also present. The existence of this latter body had been disputed, but Dr. O. Hesse has established its identity and composition. An important test for the detection of amorphous bodies in cocaine hydrochlorate was, early in the year, proposed by Mr. H. MacLagan, and Mr. J. Williams has shown that that salt may be readily purified by treating a solution of it in absolute alcohol with pure ether, whereby the pure hydrochlorate is precipitated, the amorphous bodies remaining in solution. The doubt which has existed regarding the active constituents of gelsemium root has been removed by the discovery of gelseminine by Mr. F. A. Thompson, this being the body which gives the oxidation reaction similar to strychnine, and to which the tetanic properties of the root are due. Messrs. Paul & Cowley have shown that the amount of caffeine in coffee of varied quality differs but little, and lately they have elicited similar facts regarding the theine of tea. Messrs. Dott and Stockman have also conducted an able research on the derivatives of morphine, while cryptopine is the subject of an excellent paper by Dr. Kander.

The advance which chemists are gradually making towards the synthetical preparation of alkaloidal bodies is closely watched by pharmacists and pharmacologists. It comes within the history of the closing year to record the completion of Ladenburg's synthesis of coniine, but it is noticeable that he was unable to obtain the body identical with natural coniine without the intervention of life, mechanical processes alone not being sufficient. The synthesis of pilocarpine by Messrs. Hardy and Calmels, is another remarkable achievement in this direction, but the immediate results of work in this department of chemistry should rather be looked for in the antipyretic compounds which appear from time to time. These are really the half-way houses of synthetical research; the nearer the synthetists approach, for example, to the complete synthesis of quinine, they find that the bodies formed at the various stages approach quinine in physiological properties. The conditions which modify these properties were clearly detailed by Dr. Armstrong in his lecture on the subject before the London section of the Society of Chemical Industry. The principal additions to this group of bodies during the year are antithermin (phenylhydrazinlevulinic acid) and acetphenetidin, while there have been introduced several new bodies related to the phenols, the most of which were ably described, especially as regards their pharmacy, by Mr. H. Helbing at the Pharmaceutical Conference in Manchester. Mr. Williams has given another method for the preparation of crystallised aconitine, and an investigation on colchicin, which had for its object the discovery of a reliable test for the glucoside, has resulted in its preparation in a crystallised form. This fact we owe to French chemists, who have of recent years shown wonderful activity in research. It is a Frenchman (M. Moissan) to whom is due the credit of isolating fluorine. The facts were recorded in THE CHEMIST AND DRUGGIST of last year; but since then Moissan has continued his investi-

gation, and has studied the properties of the element as fully as its intractable nature permits. He has found it to possess most of the properties which theory had given it; but it is remarkable that silver fluoride, unlike other haloid salts of silver, is soluble in water. It is to the energies of another Frenchman—M. Pechiney of Salindres—that the perfection of Weldon's process for the preparation of chlorine from magnesium chloride is due. This process, or some modification of it, is destined to affect the alkali industry seriously by providing an independent source of bleaching-compounds. Considerable economy has been effected in the manufacture of potassium chlorate by the use of magnesium chloride instead of the corresponding calcium compound. On such subjects as these the Society of Chemical Industry continues to do excellent work. Each of its branches, so far as technical matters are concerned, works independently, and as the branches are situated in different industrial centres, the result is that much useful knowledge is added to chemical literature every year. The annual meeting was held in Manchester this year, under the presidency of Mr. David Howard, a member of the Stratford firm which is so well known to pharmacists. The Chemical Society is now presided over by Mr. William Crookes, whose life long researches in connection with the rare earths have more than entitled him to this honour.

PHARMACY AND MATERIA MEDICA.

The advances which have been made in pure pharmacy during the year are not many, but the publication of the B.P.C. Unofficial Formulary possesses some historic interest. We have already criticised the pharmacy of the formulary so fully, and the criticism being now continued by others, we need not refer to it in that connection at present. At first the formulary was thought to be disappointing, but this impression is being gradually removed. There is no doubt that the committee were too eager to publish the results of their year's labour, which may account for the weak character of the formulary, but after another year's work we expect that they will produce an amplified and improved formulary, which pharmacists will accept as a standard for unofficial preparations. *Strophanthus*, both as regards its chemistry and pharmacy, has received much attention, and it may reasonably be put down as an established therapeutic agent. Bland's pills have been the subject of considerable discussion during the year, Scottish pharmacists being those who have vexed themselves most about the matter, and it is hoped that the B.P.C. formula for the pills is a final one. Regarding turpentine liniment, Emeritus Professor Redwood replied to the numerous Pharmacopœia critics, but time only has silenced them. In our columns several practical subjects have been discussed by correspondents—such as the colour of resin of podophyllum and the proper method of making the paraffin ointments of the Pharmacopœia—the discussions in all cases giving rise to consensus of opinion and experience which cannot fail to prove of value. A French pharmacist has suggested the use of casein as an emulsifier, and Irish moss for the same purpose has had attention in this country and in the United States.

There have been few important additions to organic materia medica during the year; the most noteworthy is ipecacuanha cultivated in "India," a small consignment of which was received from the Straits Settlements, and was examined by Mr. Ransom, who found it to be equal to good Brazilian ipecacuanha. Blistering beetles from South Africa (*Mylabris* sp.) have been found by Mr. Braithwaite to be superior to cantharides; but a blood-red Chinese beetle

(*Huechys sanguinea*), a quantity of which was sold in Mincing Lane during the early part of the year, we found to be destitute of vesicating properties, and in this conclusion we were corroborated by Mr. John Moss. A very useful work on Chinese materia medica has been commenced in Hong Kong by Mr. W. E. Crow, a pharmacist, with whom are associated a botanist of experience and a native medical practitioner (Dr. Ho Kai). This work promises to be of great value to pharmacognosists. Saccharin, so long promised, was provided in commercial quantities three months ago, and its usefulness was immediately demonstrated by its adaption to numerous dietetic and medicinal purposes; but pharmacists claim, with some show of reason, that the existence of a patent for the application of the substance to the coating of pills and the manufacture of gelatine capsules is an encroachment upon their liberties. We have already pointed out that the validity of the patent can only be proved in the law courts, and Messrs. Barron, Harveys & Co., who work it, have been publicly challenged to substantiate the statements which they have made in a circular addressed to chemists. Pharmacists have been so fully occupied with testing the sweetening properties of saccharin that little has been done to prove its usefulness as an antiseptic agent. For this purpose it is believed that there is a good field for it in pharmacy, and the coming year may show how far this is the case. Distinct advance has been made with antiseptics during the year by the investigations of Messrs. Kingzett & Thomson and Dr. Cash. Mr. Thomson's fluosilicate antiseptic appears to have a wide application, and at present there is a talk about it replacing perchloride of mercury in surgical dressings. The antiseptic properties of iodoform were disputed in the early part of the year, but little attention has been given to the allegations which were made. Its abhorrent odour has not yet been successfully covered, and the various substitutes, such as bismuth subiodide, which have been brought forward do not appear to gain favour.

It is obvious that metropolitan and provincial associations, as our columns testify, provide ample means for practical pharmacists airing their opinions and intimating their discoveries. These associations act as a stimulus to work—papers have to be manufactured, therefore work must be done. The Pharmaceutical Society's meetings, in Edinburgh and London, have been well supplied with papers; and the same may be said for the Liverpool, Midland and Sheffield Associations of Chemists, and the Assistants' Associations of Edinburgh and London; but there are other associations which have found evening meetings a failure, and which devote their time with varied success to the promotion of pharmaceutical education. Scientific meetings of pharmacists form one of the problems of the future. Our reports of this winter's meetings show that attendances are much below par, and our information is to the effect that the work done is forced and far from enthusiastic. One change, which the most experienced observe, is that the older men stay at home, and that some of the younger attend and do the work of scientific meetings. Perhaps this is as it ought to be, but there is a want of general interest. Few care to listen to technical or scientific papers, although they may read them, and meetings of scientific bodies are becoming to be regarded as formal matters or conveniences for specialists. That seemed to be the opinion of most at the Manchester Pharmaceutical Conference. The addresses were well looked after, but the papers as a whole were read to meagre audiences. Nevertheless there were some excellent communications made at the meeting; this was generally acknowledged by those who could have discussed them but did not, because they were unable to follow the authors sufficiently closely. As a result,

there was a proposal made at the meeting to supply members present with proofs of the papers. The American Association has adopted this plan, and the British Pharmaceutical Conference will undoubtedly follow in its wake should funds permit. Elsewhere we remark upon the scheme of pharmaceutical research which is suffering so ignominious a collapse. Here it is convenient to notice the proposal regarding the teaching of practical pharmacy which arose, partly on the initiative of Dr. Symes, a few years ago, and which, during the present year, was finally decided upon by the Pharmaceutical Council. What is to be done may be regarded as a commercial venture; but there is another side to the matter which should not be lost sight of, viz., the fact that the Privy Council representatives at the examinations have recommended that practical pharmacy should be an examination subject. As a result of this the new examination hall at Bloomsbury Square has been constructed partly with a view to provide facilities for a practical examination in pharmacy, and the examiners have considered certain proposed modifications of the examination requirements which would entail more extensive practical and scientific knowledge than is at present expected of candidates. But it is doubtful if the sweeping proposals will be made public for some time to come—not, at all events, until the Pharmaceutical Council finds its feet in money matters.

THE DRUG MARKET.

There is scarcely a prominent article of the drug, chemical and drysaltary branches that has not, at one time or another during the course of 1887, been subject to speculative movements or experienced a well-founded advance. Leaving such articles of general produce as tea, coffee, sugar, &c., outside the scope of the present review, and confining ourselves strictly to commodities of immediate interest to the various branches of the drug trade, perhaps the most striking instance of speculative activity is represented by the fluctuations of quicksilver. At the beginning of the year that metal was worth only 7*l.* 5*s.* per bottle, and subsequently it sank to an unprecedentedly low figure, but within the last few weeks it has advanced again to a price such as has not been known for about twelve years. In this movement it has only followed the tendency of other metals, notably copper, which has now, it is alleged, been taken in hand by a syndicate, who propose to maintain it at an abnormal value for at least two years. If this object should be secured, we may expect to witness a still further advance in copper sulphate. Another metal affected by the rise is antimony, but in this case the increased value appears to rest upon a more solid foundation. Lead acetate has been rising for many months, probably in the first instance owing to the fact that one of the principal German makers of sugar of lead suspended the manufacture of that article, because, at the prices then ruling, it had become unremunerative. The advance in camphor, which, early in the year, was quoted at 11½*d.* for refined bells, and is now firmly held at 1*s.* 2*d.* per lb., is also one of the few instances in which an enhanced rate seems fully justified by all available information on the commercial position of the article. The iodine ring, the disintegration of which had generally been anticipated, unexpectedly received a new lease of existence in January last, and at once advanced their price from 5½*d.* to 9*d.* per oz., though it has subsequently again been reduced to 8*d.* It does not seem likely now that we shall see lower prices while the ring holds together; but the conditions of the basis of agreement among the iodine makers, as published at the time in THE CHEMIST AND DRUGGIST, seem to argue against a long-continued duration of the compact. Morphia, which at one time, when the reports of a total failure in the opium crop assumed a definite

shape, threatened to become a pet article of speculators, has lately been exceptionally quiet. Opium itself, although undoubtedly the harvest has been a very small one, has gone rather out of favour, and business in it has been practically at a standstill for several weeks past. One of the main features of the drug markets has been the steady and persistent decline in quinine, which at one period of the year was obtainable at the previously undreamt-of price of 1s. 3d. per oz. At that figure it attracted the attention of speculators, and an astonishingly large business resulted in the month of November at rates advancing up to 2s. 1d. per oz. for German brands. Latterly prices are once more declining, and the bear and bull parties appear to be fairly evenly divided. Several articles have appeared in our columns throwing some light on the question at what selling price it is possible to harvest cinchona at a profit, and on that of the probable extent of the future supply of bark from the principal producing countries. So far, the shipments from Ceylon during the present season show a very serious falling-off in bulk; but this factor, although an important one, may to some extent be balanced by the increased production from other quarters. Among other articles which have at one time or another during the present year been subject to large and often violent fluctuations are chamomiles, senega, ergot of rye, cubebs, and cod-liver oil, of all of which the production has fallen below the average; buchu leaves, insect flowers, copaiba balsam, and balsam of Peru, which have been (generally unsuccessfully) handled by speculators with a view to "cornering," and several others. A temporary scarcity of ipecacuanha forced up the price of that root to almost famine figures, but more recently heavy supplies have again arrived, and the rise is almost lost. Gum arabic commands higher and higher rates, and the prospect of the resumption of regular business relations with Equatorial Africa by the Nile route appears as remote as ever. Musk has arrived at a price almost unprecedented in the history of that expensive article, and which renders the discontinuance of its use in certain minor employments almost imperative. Shellac has recently entered upon a course of improved values, for which the failure of the sticklac crop is put forward as an excuse. In spices there have been numerous fluctuations, but on the whole values are continually tending lower. The Continental war scare early in the year and the heavy purchases of picric acid for the French Government caused a temporary advance in carbolic and oxalic acids, but these articles speedily relapsed to their former values. The principal heavy chemicals have been well maintained in value. On the part of the producers of certain articles a growing tendency is manifested to form rings and conventions for mutual protection, and in most cases where such understandings have been actually effected the result has been a beneficial one; for while such rings as those of the bleaching-powder, borax, iodine, and bromine producers have secured to their members a remuneration somewhat more in accordance with the cost of manufacture of their articles, yet the prices of the commodities have at the same time not been increased to such an extent as to seriously interfere with the interests of the consumers. But the copper syndicate, which is now talked about, threatens to become much more objectionable from a public point of view, and it is quite conceivable that an abnormal development of capitalist energy in the formation of associations directly or indirectly opposed to the public interest might be followed by repressive legislative measures against the over-bold speculators. Renewed efforts are being made in Germany to form a spirit ring, similar to that which, when all but completed this summer, collapsed at the last moment. Rumours concerning the impending union of the manufacturers of quinine have also been current again lately, though

they have assumed no definite shape as yet. Among the principal new articles introduced upon our drug market this year are saccharin and strophanthus. The latter, it is true, was commercially known before the beginning of 1887, but it is only within the last few months that supplies have been received so regularly and in such quantities as to render the drug a true market article. Changes among the *personnel* of our drug market have been very few this year, though by the death of Mr. T. H. Phillips, senior partner in the firm of Jenkin & Phillips, Mincing Lane lost a thoroughly reliable and universally respected drug-broker. One large drug firm, that of David Taylor & Sons, has, unfortunately, come to grief; and among the minor failures only those of Whatley & Hicks and F. Thomae & Co. have to any extent affected the trade. An abortive proposal has been made to abolish the fortnightly drug sales in favour of monthly auctions, and an alteration was introduced in the gum sales, by which "water" and "varnish" gums have been separated. This innovation appears to work well, and its principle has been extended to the drug auctions by the elimination, under certain conditions, of vanilla from the general catalogues. The hour of meeting on 'Change has also been provisionally altered. The only legislative measure of the year likely to directly affect drug merchants is the Merchandise Marks Act, of which full particulars have been given in this journal. Efforts have been made to obtain a revision of the regulations affecting the manufacture of spirituous preparations in this country, but, so far, these have remained unsuccessful. Nor has a better fate attended the request by the London Chamber of Commerce for the adoption of a less antiquated system of placing of Government orders for drugs and chemicals, and the manner in which these contracts are allotted still remains a disgrace to a commercial community.

The Board of Trade Returns, and such other general means as we possess of ascertaining our progress from a material point of view, give the clearest possible evidence that the era of depression is waning fast, and justify us in entering upon the new year in the confident expectation that it will fulfil the closing promise of its predecessor. It is true that everywhere our merchants meet with increased competition, and that, foot by foot, they find neutral markets where once they held undisputed sway assailed by the foreigner. Continental nations endeavour to shut their markets still further to our manufactures by protective tariffs; France in the far East and Germany in Equatorial Africa are making desperate efforts to found colonies which shall render them independent of British possessions for their requirements of raw materials; Germany subsidises steamship lines to the East, and Russia is pushing forward her railway system into the heart of Asia. But, in spite of all these developments of international rivalry, there are good reasons for believing that our manufacturers and traders, now thoroughly awake to the fact that they have powerful and capable competitors to contend with, will succeed in maintaining that position of commercial eminence which this nation has occupied for more than a century.

A "Great Tay-Kin" in Berlin. There has long been a standing joke in German pharmaceutical circles relating how a lady sent her servant to obtain a certain medicine at a homœopathic pharmacy, and at the same time to purchase at the fancy draper's some woollen yarn known as "Estramadura, No. 5." The servant somehow muddled up the two orders, and shortly returned bearing a bottle of a liquid labelled "Estramadura, No. 5," which had been duly dispensed to him, according to his order, by the homœopathic chemist. But recently the German homœopaths have taken a cruel revenge upon their allopathic revilers, for under the heading "Mysteries of a Pharmacy" an article was

published the other day in the German daily press which places a large number of Berlin pharmacists in the dilemma of deserving to be stigmatised as either knaves or fools. A few months ago a central union of the German Homœopathic Association was established in Berlin, which, among other objects, set itself the task of proving that the German pharmacy law, which provides that "if any remedy occurring in a prescription is not in stock, or cannot be procured, no other remedy may be substituted, nor is the missing ingredient allowed to be left out, but the prescription must be returned to the prescriber," is being systematically evaded. Bogus prescriptions were, therefore, prepared, containing among articles of acknowledged medicinal use others which are quite unknown in materia medica, and presented for dispensing. One of the prescriptions in question read as follows:—

I. Aconit. nap. dec. 3a dil. 10°.
II. Tuber cinereum, dec. 5a dil. 10°.

D.S.—To be administered in rotation every two hours, 4 drops in a teaspoonful of water.

By "tuber cinereum" was intended the precious "grey matter" of the human brain, and, wonderful to relate, this article, along with the aconite, was actually dispensed, registered, and paid for in fifty-eight Berlin pharmacies. Among other fancy ingredients occur such as *urticaria rubra*, or nettle rash; *pemphigus foliaceus*, or eruption of the bladder; *madaroma fraudulentum*, or "fraudulent bald-head," and other equally absurd concoctions. The prescriptions were presented in eighty-nine pharmacies, and of these, it is asserted, only twelve refused them. The others dispensed the medicines with alacrity, and in some cases the assistants actually labelled the bottles containing the "medicine" with the fancy names. When the hoax was complete, the Homœopathic Association submitted the whole bundle of prescriptions, together with the compounds dispensed, to the editors of certain journals. For the honour of German pharmacy and the reputation of German chemists, we had hoped that satisfactory proof would have been forthcoming of the untruth of the allegations, but the accredited organs of German pharmacy admit the truth of the charge, and only aggravate its seriousness by their childish and futile attempts to whitewash the foolish or unscrupulous members of the craft. The *Pharmaceutische Zeitung* seeks comfort in suggesting that in every instance the head of the establishment must have been absent when the prescriptions were dispensed, and that even the most straightforward and duty-devoted business man may occasionally be found napping. "The dispensers," it exclaims, "must in good faith have read *urtica* for *urticaria*, *jalap* for *tuber cinereum*," and so forth. It is suggested that the pharmacists, being secure in their monopoly, cannot after all suffer any great pecuniary loss by the *contresens*, for, willy-nilly, the public must come to them, and they are practically all, except twelve, tarred by the same brush. The Berlin Pharmaceutical Society, at their last meeting, have discreetly resolved to take no further notice of the matter, on the principle of "least said, soonest mended." The boasted educational superiority of German pharmacists would certainly seem to have received somewhat of a shock by the revelations.

* *

Zanzibar Cloves. An Austrian traveller, Baron von Nagy Rako, in an article on the commercial importance of Zanzibar and the Somali coast, published recently in the *Handelsmuseum*, gives some particulars on the cultivation of cloves in Zanzibar. He observes that the culture of this spice is the only one to which any particular attention has been paid by the Arab landed proprietors, and which they conduct upon rational principles. A large clove plantation contains from 10,000 to 15,000 trees, laid out in regular avenues. From 120 to 130 hands are required to attend to a plantation of this size. The Arabs employ only slave labour, thereby rendering European competition, which would entail the employment of free labourers, almost impossible. On the island of Pemba there is a single plantation of 10,000 trees owned by a European, a Frenchman, named Coltoni; but it is said that he is about to withdraw from the cultivation, finding it no longer profitable. The buds are gathered with the branches, which are broken off from the tree by hand; the cloves are then taken from the twigs, sorted, separated into two qualities, spread out and dried.

Only a few spots on the islands of Zanzibar and Pemba (an island north of Zanzibar) are suitable for the cultivation of cloves, and all attempts to grow them in neighbouring parts have failed. In quality the Zanzibar cloves are superior to those grown in Pemba, but the production in the latter island is still about three times larger. The largest and best crop is gathered shortly after the rainy season; a second, but smaller and of inferior quality, is harvested a few months after the first.

* *

Militant Medicine

The case of Millican v. Sullivan, which we reported at length in our last two issues, is the subject of a general scrimmage in the *Times* newspaper. The question before the Courts, which, too, is still *sub judice*, has to do simply with an interpretation of the rules of the Jubilee Hospital; but the incidental question raised of the right possessed by the "regular" doctors to boycott their homœopathic brethren or rivals excites far the greater public interest. Lord Grimthorpe, better known under his old title of Sir Edmund Beckett, has dashed into the fray with characteristic vigour. "As these people," he says—meaning the "regulars"—"evidently mean to defeat the Medical Act by the roundabout process of closing every hospital against those whom they are prohibited from excluding from private practice, the time is come when the governors or subscribers must decide for either liberty or tyranny. If the tyrants like to abdicate when they are beaten, as they did at Margaret Street, the gaps will speedily be filled. Nobody ever yet conquered by abdicating, if the other side knew their business and were resolute." In a second letter he boldly suggests that the boycotters should be indicted for conspiracy. "It is conspiracy at common law," he says, "punishable by fine and imprisonment, practically at the discretion of the Court, to combine to injure a man in his business or his reputation; to compel him to carry on his business in any particular way, or not to do so; to employ or not to employ particular people; or to do any act injurious to third persons or the public or any part of them; or to make false charges not only of legal offences but of anything discreditable—assuming in every case that justification cannot be proved." The plaintiff in the case, the founder of the Jubilee Hospital, Dr. Thudichum, the chief defendant, and Major W. Vaughan Morgan, the chairman of the London Homœopathic Hospital, have joined in the fight, and it may happen that through these doctors falling out patients may come to their rights.

Trade Notes.

MESSRS. SMITH BROTHERS, dealers in drugs, &c., have removed from 7 The Crescent, Minorities, to Colonial Chambers, 13 Crutched Friars, E.C.

MR. D. DICKINSON has purchased "Hoole Pharmacy," Chester, from Mr. W. H. Baker, who still retains his Frodsham Street business.

MR. THOMAS YOUNG, of Kilmarnock, has taken his son, Mr. William Fulton Young, into partnership. The business will be carried on under the style of Thomas Young & Son.

MR. R. STEVENS, of 19 Wigmore Street, W., has purchased the old-established business of Messrs. Bowden & Co., 13 Charles Street, St. James's Square, S.W.

WE are requested to state that shares in the South London School of Pharmacy, Limited, the registration of which as a limited company we referred to last week, are not offered to the public.

THE CHISWICK SOAP COMPANY will open offices and sample rooms on January 1 at 138 Leadenhall Street. Their soaps have obtained the highest award at the Adelaide Exhibition.

MR. GRIFFITHS, of Blandford, has disposed of his business in that town, and he has succeeded to his father's old-established business at Weston-super-Mare. Mr. G. B. Crocker acted on behalf of the vendor, Messrs. Orridge & Co. for the purchaser.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., December 29.

BUSINESS is practically closed so far as the present year is concerned, but it is worthy of mention that the volume of business transacted during the few "off-days" between Christmas and the New Year has been larger on this occasion than for several years past. The advent of 1888 is generally hailed with confidence and in cheerful anticipation of increased commercial activity. It is but natural that we should have only a few changes to record this week. The principal of these are an advance in citric acid and in antimony, higher rates for essential oils of lemon and bergamot and for saffron, and better prices for shellac (second orange and garnet), gambier, and petroleum. Camphor and cinchona remain very firm, and quinine seems also to be receiving greater attention. But quicksilver is decidedly easier, sulphate of copper is a shade cheaper, and star anise oil has slightly declined.

ACID (CITRIC) has advanced to 1s. 8½d. on the spot, at which price the market is reported to be almost cleared. For forward delivery early in the year the same price has been paid, and we heard it said that yesterday a Continental order for ten tons per month over the coming year could not be placed 1s. 8½d., but this report we have not been able to confirm.

ACID (TARTARIC) flat at 1s. 6½d. to 1s. 6¾d. for foreign.

ANISE.—China mail reports state that the *star anise* of the new crop arriving upon the central markets from the interior is in a bad condition and cannot be exported unless previously prepared, which would increase the cost considerably.

ANTIMONY is again quoted dearer, *Regulus* up to 50l.

CAMPHOR.—*Refined* remains very firm at 1s. 2d. per lb. for English made hells, but manufacturers evince no anxiety whatever to sell. The quotation of 89s. to 90s. per cwt., c.i.f. terms, for *erude* Japanese is confirmed. Reports from Hong Kong, dated November 21, state that the market for crude camphor is quickly advancing. Formosa camphor is not to be had and little is coming forward from Japan. At the same time the export demand remains very brisk.

CINCHONA.—It is reported that several parcels which were bought in at the last auctions have since been privately disposed of at full prices. These sales include, it is stated, 500 hales Ceylon bark and 50 bales South American (*cuprea*) at 4½d. per lb. The following statistics relating to the movements of bark in Ceylon are significant, and must be admitted to favour the sanguine view taken by some parties of the prospects of the article, especially inasmuch as they show a falling off in the receipts of bark at Colombo from the interior. The exports of bark from Ceylon, from October 1 to December 1, were, in 1887, 1,364,323 lbs.; in 1886, 2,676,312 lbs.; in 1885, 2,918,984 lbs.; and in 1884, 1,232,977 lbs. The receipts of cinchona at Colombo per Ceylon Government Railway from October 23 to November 20 were 1,014,720 lbs., against 1,823,360 lbs. in 1886.

COPPER (SULPHATE) is somewhat easier since last week, the high prices having checked business. 20l. 10s. to 21l. is now quoted for first mint.

CUTCH firm, with sales of fine *RS* slabs at 31s. 6d. to 32s.; *RS* block at 30s. 6d.; and *MM* slabs at 32s. 6d. per cwt.

GAMBIER.—Slightly higher but with little business passing. *Block* has sold at 23s. 9d. per cwt. on the spot.

MERCURIALS.—Although quicksilver has somewhat declined in value, the manufacturers of mercurials maintain,

for the present at least, the prices quoted in our issue of December 17, which are calculated on the basis of quicksilver at 11l. per bottle.

MUSK.—We received two cases this week, direct import from Shanghai, per *Telemachus*.

OILS (ESSENTIAL).—*Star anise* is quoted lower on the spot, say at 7s. 4d. per lb. Telegrams from Sicily mention an advance of 6d. per lb. on *Bergamot*, which is now quoted at 9s. 9d. to 10s., f.o.h., and 6d. to 9d. on *Lemon*, for which 5s. 6d. to 5s. 9d. is required. For American oil of *peppermint* (H.G.H.) 12s. to 12s. 3d. per lb. is asked on the spot.

OPIUM.—Smyrna reports mention a somewhat unsettled market with further purchases for account of American firms. The arrivals for the season up to December 16 were 698 cases, against 3,815 at the corresponding date of the previous year. The statistical position of the article is said to be as follows:—

	Cases
Stock in Turkey on July 15	2,800
Crop 1887-8	1,800
	<hr/> 4,600
Sales and shipments from Smyrna, Constantinople, and Salonica	2,200
Stock left on December 16	<hr/> 2,400

Of these 2,400 cases it is computed that 1,600 are at Smyrna, 500 in the interior, and 300 at Constantinople and Salonica. Advices concerning the winter sowings are satisfactory.

QUICKSILVER.—Quiet and without business. Nominally 10l. 12s. 6d. was quoted up to Wednesday, but the closing price cannot be placed above 10l. 10s.

QUININE.—Some business has been done, it is said, in German bulk (*Brunswick*) at 1s. 11d. per oz., and it was rumoured that at the close of last week there were buyers of 100,000 oz. of *Zimmer's* quinine at a price which was declined as being too low. The figure actually offered is variously stated to have been 1s. 10d. and 1s. 10½d. per oz., but the rumour appears, to say the least, of a doubtful character. The agents for the B & S brand do not quote. All other brands nominally unchanged.

SACCHARIN.—The London agents have not varied the prices quoted from the outset, and which were mentioned in our report a few months ago, nor do they contemplate any change. It appears to be a fact that German houses can buy saccharin (though not for importation into Great Britain) at lower rates than those prevailing here, and this arrangement to some extent interferes with the execution of colonial orders by British houses. We understand that there is a prospect of fixing a uniform price for the article.

SHELLAC.—The market closed firm before the holidays, the latest prices paid being 72s. c.i.f. for *Fine orange* (G in double triangle), December-February; *Second orange* (IN ditto), 58s. per cwt.; and 49s. c.i.f. for AC *Garner*, February-April shipment. At the close the market is exceedingly firm, with sales of *Second orange* on the spot at 58s. to 60s., and third *Button* at 53s. per cwt.; and it is thought that after the close of the year fresh American purchases will tend to stiffen it still further. The previous reports regarding the smallness of the crop of shellac are also said to have been even below the mark, and it is thought that some shellac factories may have to stop working for want of supplies. Mail advices from Calcutta, dated December 6, are not, however, in unison with these statements. On the contrary, it would appear that up to December 1 (the date, *inter alia*, when the last London statistics were published) the Calcutta market ruled very quiet and rather easy, but on the day named a sudden demand from England sprang up, under the influence of which prices advanced about 5 rupees for TN. Sales were made at advancing rates, amounting altogether to 11,000 to 12,000 cases within two days. The better marks have all been advanced in sympathy, but so far without resulting in much business. Sellers are so excited that it is extremely difficult to quote the market correctly. There is still a large short interest uncovered which may cause a further advance. *Button lac* has shared in the excitement, but no transactions are reported at the prices asked.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Liq. Ferri Hypophos. Co. B.P.C.

SIR,—In reply to Mr. A. C. Abraham's letter published in your last week's issue, permit me to state that he is himself in error in supposing that the amount of acid hypophos. in the B.P.C. formulae of this preparation should be 2 fluid oz. instead of 1 fluid oz. The earlier proofs—marked private—to which he refers were intentionally provisional, and were open to revision. It was as the result of experiments conducted by certain members of the committee that a reduction of the acid by one-half its original quantity was finally agreed to.

W. A. H. NAYLOR,

December 29. Hon. Secretary Formulary Committee.

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Amsterdam as a Cinchona Market.

SIR,—Your issue of December 17 contained an article about Java cinchona bark. It was shown therein that Java will probably come forward with considerable quantities of bark after 1889, and it may therefore, perhaps, be of some interest to your readers to judge whether the Dutch market is equal to find an outlet for these quantities or not.

On examining the catalogues of the public sales here since 1882, I find that the imports of bark from private plantations in Java amounted to:—

382 packages of about 150 lbs. each in 1882	
844 " " "	1883
1,746 " " "	1884
4,215 " " "	1885
5,652 " " "	1886
8,000 " " "	1887

On January 19, 1888, 668 packages Government, and 1,434 packages private bark will be sold, whilst the following nine auctions next year will doubtless offer as much, or rather more. The total importation of private bark for 1888 may therefore be estimated at 15,000 packages, that of 1889 at 25,000 packages, to which must be added the Government crop of 5,000 to 6,000 packages a year.

Before the beginning of this year (1887) our market could not be said to have been equal, in every respect, to the requirements of a large importation of bark. The chief importers, the Netherlands Trading Company, acting as the Government's agent, followed their own way, selling their 2,000 to 3,000 packages a year in one or two auctions here, whilst the private parcels were sold, as occasion arose, at auctions too small to attract the attention of many buyers.

The Netherlands Trading Company disposed of excellent warehouses, and the greatest care was taken in bringing the bark under the buyers' eyes; they also introduced the custom (since followed by all private importers) of publishing the analysis of every parcel before the auction, and permitting buyers to take samples themselves. The private importers, on the other hand, were in anything but an enviable position. With no warehouses of their own, they wholly depended upon the goodwill of the "Veemen" (warehouse corporations), who, in many cases, set apart rooms for the storage of bark

quite unfit for the proper exhibition and sampling of cinchona bark, and insufficiently lighted—rooms, in fact, which they could not use for any other purposes. This, however, was not surprising, as the cases and bales containing cinchona bark had to be put down opened, arranged side by side with gangways between, and to remain in this state for weeks, thus yielding less profitable warehouse charges than other articles, such as coffee, rice, spices, &c., which, being piled up, completely filled a room, the floor of which would scarcely be covered if stored with cinchona bark. Another inconvenience for buyers was that, every importer employing his own "Veem," the different parcels were stored in different places, often far distant from each other.

Such was the state of things until April 1886. Since then all has been changed for the better, and Amsterdam may now boast of a well-organised market, second to none in the world.

In April 1886 the "Kina-Etablissement" opened its warehouses to importers of cinchona bark, under the direction of a warehouseman who had handled the article from the very beginning of its appearance in this market. Their show-rooms, just as those of the Netherlands Trading Company, are splendidly lighted through skylights, and spacious enough to allow 8,000 packages and more to stand open, side by side, with passages for the samplers, during some weeks before every auction.

The "Kina-Etablissement" not being established with a view to make money out of it, but merely for the benefit of the market, the tariff for storing, &c., could be fixed at very low rates, whilst, on the other hand, everything is done with the utmost care to promote the importers', and consequently planters', interest, and to make buyers feel comfortable.

The "Kina-Etablissement" and our cinchona market are greatly indebted for their quick and perfect success and development to the director of the bonded docks, who put at its disposal the finest warehouses in the docks; and to the Netherlands Trading Company, who energetically supported a proposal addressed to the Government and readily accepted by them, to sell their barks in eight (next year in ten) periodical auctions, thus offering to private importers a centre for the sale of their bark, and securing to the auctions a greater interest by the inclusion of the splendid old "druggists' bark," which none but the old Government plantations can offer.

I am, sir, yours truly,
Amsterdam, December 28. GUSTAV BRIEGLER.

Selling Small Quantities of Patent Medicines.

SIR,—We recently addressed the following inquiry to the Board of Inland Revenue:—"May Steedman's powders be sold singly, and Whelpton's pills retailed in pennyworths if taken out of stamped original packages?" We have this morning received the following reply.

Faithfully yours,

221 Chester Road, Manchester. WHITFIELD & PIDD.

Gentlemen,—The Board of Inland Revenue having had before them your letter of the 9th instant, I am to acquaint you in reply that the Board would not object to a licensed retail vendor of medicine breaking open a duly stamped packet of Steedman's powders and selling the contents singly, but in the event of an information being laid against him it would rest with him to show that the powder was taken from a duly stamped packet. This concession does not, however, apply to Whelpton's pills, every box or packet of which must be duly stamped.

I am, gentlemen,

Your obedient servant,

December 20.

W. H. COUSINS.

[This is directly contrary to previous rulings of the Board of Inland Revenue. In August 1879 we published an extract from a letter written by the Board, stating that certain pills (Kaye's) might be sold out from a stamped box in smaller quantities unstamped. We then wrote to the Board asking if this decision applied to all patent medicines, and received a reply, from which the following is extracted: "All medicines which are liable to stamp duty, and which have been sold duly stamped by the original vendors thereof, may be resold in smaller quantities by licensed vendors without being restamped. If, however, the resale should be made in any packet, box, bottle, pot, phial or other enclosure, such enclosure would apparently fall within the charge of stamp

duty imposed by the Act 44 George III. cap. 98, and the retailer would be strictly bound to show that the article sold by him had been previously sold to him under the proper stamp." In May 1882 the Board gave similar advice to the secretary of the Chemists' Trade Association. We shall make further inquiries.]

The Dark Side.

SIR,—In a recent editorial you, like all the rest of us hopeful people, appeared to be catching at the straws of improved trade which some political orators have lately sent fluttering out upon the breeze of public opinion.

In these days of short leases and increased rents I cannot see how anyone but landlords can be interested in the improved prospects (if such there be), because, if business and profits are good the rent goes up; if trade is bad, the landlords get less; while, as for ourselves, we chemists, who work like slaves, we appear to exist, whether trade be good, bad, or indifferent. If by years of industrious attention to business we form a valuable connection and appear to be getting on, our lease happens to expire, the landlord or his agent, or both, begin to calculate the value of the goodwill established by us for the particular locality, and invite our brother-chemist looking for a shop to assist their calculations by competing with us for our own business goodwill.

Then we begin to realise the force of all the old proverbs about the benefits of industry, only we feel like adding an explanatory word occasionally, as:—

"The hand of the industrious (tenant) maketh rich (his landlord)."

"Idleness (of the tenant) tendeth to poverty (of the landlord)."

"A late-to-bed and early-to-rise (tenant) maketh a landlord that is healthy, wealthy, and wise."

Therefore, why should we bother ourselves about the state of trade any more than any other slaves, seeing that it is our masters, the landlords, who get in the long run all we earn, excepting the very moderate sort of a living which of necessity we must have, or starve and die?

Shall we join in a plan of campaign, and resolve to "eat, drink, be merry," and spend our incomes as we go, knowing that whatever is saved must eventually go to the landlord's children instead of our own? Or shall we instead join the anti-poverty society, and vote ground-rents for taxes, thus paying as a tax to the State what we now pay to the landlord in ground-rent—viz., the unearned increment created by the public? Then—may the day soon come!—we shall have no other taxes to pay.

Our customers among the working-classes will then be able to buy medicines when ill, though our patrons among the idle classes will require less dosing for the effects of over-eating and lack of healthy exercise.

At present our trade is unduly taxed through the duty on the alcohol which must be used in so many medicines, and through the imposition of the medicine-stamp tax. I would like to know the views of other chemists on these subjects.

Yours for a brighter day of justice to chemists, because to all mankind,

London, December 22.

SILAS MAINVILLE.

Maintaining the Pharmacy Act.

SIR,—I would draw attention to the suitability of the Liverpool case (*C. & D.* page 762) as a test one. The issue raised in this case would be plain. Messrs. MacSymon & Co. trade illegally, are prosecuted and fined. They advertise they will form a company in order to dispense, or, in fact, evade the law under which they have been fined. I would submit this is just the case for fairly testing the chemists' claim.

I do not advocate "protection"; I am an ardent "free-trader," and my sole desire is to maintain the rights thought (and I believe quite intended) to be granted us; or if thought well to deprive us of such rights, then let us know it is to be done.

Yours truly,

HENRY J. DEACON.

14 South Colonnade, St. Leonard's-on-Sea,
December 22, 1887.

The Irish Pharmacy Act.

WE received a letter from Mr. S. Gibson (Belfast) too late for insertion last week, in a sense similar to that of Mr. Clotworthy. We have desired to let both sides in this Irish controversy have a fair say, but we wish our correspondents on both sides would be rather less fluent. We do not see much prospect of legislation unless there is a little more of the policy of give and take than is manifest in the letters we have recently published.

49/223. *No Surrender* writes from Belfast in the tone of his *nom de plume*. He says:—"It is high time that all pharmaceutical chemists opposed to the proposed amendments to the Act should vigorously assert their legitimate rights. If only chemists in business before 1875 were provided for it might be reasonable." He does not agree that "it is impossible now to ascertain who were and who were not in business as chemists and druggists retailing poisons in 1875," and cites in support of his opinion the English experience. The object of his letter is to suggest that a vote of the licentiates in Ulster be taken, and if it be found that a good majority are opposed to the action of the Council, then why should this province not be allowed to manage its own affairs?

14/224. *T. W. R.* (Limerick) considers that the proposed Bill should be opposed by every man who has the true interest of the pharmaceutical chemist at heart. It appears to be an attempt on the part of the Council to shirk the duty of protecting their licentiates—a duty for which they were mainly created. They seem to have made up their minds that the fight against the illegitimate and fraudulent trader, which they have been carrying on for the past ten years, is hopeless, and they therefore now propose to enable every man who has been dodging them and trading illegally for the last few years to register as a druggist, and divide the trade with the duly qualified chemist. As one of this class (adds *T. W. R.*), I protest against such an arrangement. If the Council find they have not sufficient ability or legal power to administer the Act, let them apply to their constituents in the one case, or to Parliament in the other, for increased powers to put down this piracy. By doing so they will gain the support of their licentiates, and also gain what they lack—their respect—instead of surrendering, as they are now doing, stultifying themselves and their acts during the past, by a compromise at once dishonourable to the Council and disastrous to the interest of the Irish pharmaceutical chemist.

Dangerous Bottles

SIR,—I think it right to caution my fellow-pharmacists against some W.M. powder bottles that are now and then supplied by the druggists' sundry houses. They are, I believe, of foreign manufacture, and covered inside with thin laminae of glass, sometimes loose, sometimes adhering flat to the inner surface; some sticking out from the sides in spicules. They are the most treacherous articles I have met with for a long time; I cannot imagine the result of an apprentice filling one of these with Gregory compound liquorice, or even tooth-powder. Wiping has little or no effect upon them. As soon as I discovered it I returned all that were sent me; still there are some who may perhaps not notice them.

Yours obediently,

VIALÆ. (40/222.)

Emulsio Olei Morrhue, B.P.C.

SIR,—In your summary of my paper on "Emulsio Olei Morrhue, B.P.C." read at the evening meeting of the N.B. Branch on December 16, you report me as having said that in making emulsions I preferred to prepare a mucilage first and gradually add the oil. Let me say that no statement to this effect was contained in my paper. The remarks in regard to making a mucilage first, and as to 75 per cent. being a reasonable proportion of oil, were made by Mr. C. F. Henry.

Edinburgh, December 27.

Yours, &c.,

PETER BOA.

Spt. Æther. Nit.: an Explanation.

SIR,—Respecting the case against us for the sale of spt. æther. nit., we should esteem it a favour if you would insert the following. When the officer called and asked for it, our manager, unfortunately, refused to take a sample, consequently we were helpless in the matter, and completely at the mercy of the public analyst; but, in order to satisfy ourselves, we took another sample out of the same bottle and handed it to an eminent private analyst, who pronounced it to be s.g. 0.849. Further, when we found that some had been taken for analysis, we immediately wrote to Messrs. Cox & Co., Chicksand Street, London (from whom we obtained the spt. æth. nit.), informing them of the fact. They wrote back to say that we need be under no apprehension whatever, as they always tested by the nitrometer before sending out, so we thought no more would be heard of it. However, a day or two after, we got a summons, and so we again wrote Messrs. Cox & Co., asking if they would defend. This they refused to do, but offered to send an affidavit from their chemist guaranteeing it to be s.g. 850. All these facts, together with the volatile nature of the article, were carefully laid before our solicitor; but the public analyst said there was scarcely a trace of nitrous ether in the sample, and, our manager not having taken a sample, we were obliged to pay the fine of 5s. and costs.

Yours faithfully,

Liverpool, December 22.

BUDDEN & Co.

Sponge Fishing.

SIR,—In the *Daily Telegraph* of December 23 a leader appeared having for its theme a report of the United States Consul at Beyrout on the Syrian fishery. The report has been either badly summarised or is inaccurate in some of its details. We therefore beg to offer a few remarks, which will correct any wrong impressions your readers may have received by its perusal.

In the first place, it is obviously incorrect to state that the sponges "have to be freed from sand." Seeing that the sponges never contain any sand in their original condition, there is no necessity to free them from that which would have practically suffocated the living animal as it is found by the divers.

Secondly, the *Daily Telegraph* writer states that "the common sponge is chiefly found in the waters whose fisheries the United States Consul has described." Now, the Syrian Fishery referred to furnishes, it is true, sponges inferior in quality to those fished on the more important grounds off the coast of Barbary and elsewhere; but there are much commoner sorts obtained from other Mediterranean fishing grounds, notably those off the coast of Tunisia, and these latter alone furnish more than all those of Syria. But the great sources of the supply of common sponges are the West Indies, the Bahamas, Cuba, &c., and also the Keys of Florida. In these localities useful sponges grow in greater variety and quicker than elsewhere, and they are also fished by simpler means. These kinds we now import into this country to a very considerable extent, and they are used in the smallest villages, where sponges were scarcely even thought of years ago.

The consul's report also states that below a depth of 25 to 175 feet there are no sponges worth taking to be found. This may apply to Syria, but it is far from applying to the more important fisheries of the Mediterranean. We employ divers who regularly descend in diving apparatus to the great depth of thirty fathoms. The pressure on their bodies at this depth is about 75 lbs. to the square inch, and as the effect of this is to temporarily impede and almost suspend the circulation of the blood, it may readily be imagined what suffering these brave fellows undergo. But the very reason which induces them to face it is that they find the best sponges at these greater depths. They are all Greeks, and of course are of exceptionally fine physique. We have been assured by the best submarine engineers that no English divers go down so far. Our Greeks can consequently be allowed their claim of being the best divers in the world, although it may be that there is something in the temperature or specific gravity of the waters of the "tideless sea" which favours its native divers.

Yours faithfully,

CRESSWELL BROTHERS.

2 Red Lion Square, December 28.

MISCELLANEOUS INQUIRIES.

218/18. *Sambuci*.—To Keep the Hair in Curl.—Use the following:—

Powdered tragacanth	..	..	..	2 drachms
Rectified spirit	..	..	..	3 oz.
Water	..	..	..	7 "
Otto of rose	..	..	..	5 "

Dissolve the otto in the spirit, and triturate the tragacanth with the solution; then add the water.

215/9. *Trag*.—To Fine a Cask of Cider.—Soak $\frac{1}{2}$ oz. of isinglass in a pint of cider, or as much as it will take up; pass this through a sieve, and mix with the contents of the cask. Agitate thoroughly, and allow to settle.

218/69. *Publisher O.* (San Francisco).—(1) Our answer regarding petroleum oil was quite correct; you may distil it or refine it as you like, but the only way to render it smokeless is to allow a full supply of air when it is burning in lamps. (2) We presume that what you mean by artificial tannin, or bark substitute for tanning, is bichromate of potash. Some years ago a process was brought out for tanning leather very quickly by means of bichromate of potash. You will get full details of the process in any modern work on tanning.

219/43. *Specs*.—You will find formulae for Starch Glaze on page 233 of the current volume.

219/3. *Crem. Tart*.—Scurf following Ringworm.—Apply the following preparation twice a day:—

Ung. hydrarg. nit.	..	..	..	5i.
Lanolin	..	..	..	3ij.
Ess. bergamot	..	..	..	gtt. iv.

Misc.

217/5. *A. Y. J.*—Pure hydrochloric acid and solution of ammonia are used in the Burroughs inhaler.

210/30. *Chlorodyne*.—We cannot account for your non-success with the chlorodyne formula. The following are the directions:—Dissolve the morphia in the S. V. R. and water, put the chloroform and treacle in a bottle and shake for five minutes, then add the solution of morphia, to which the ol. menth. pip. has been added, and lastly the acid hydrocyanic.

220/67. *Dispenser*.—You will get full information regarding Naval Hospital Dispenserships in our Educational Number, September 17.

221/62. *G. C. F.*—"Sc." is the symbol for scandium, and "Sm." the symbol for samarium.

T. P. R.—(1) The *Scotsman's* London correspondent is very much behind date. Vanillin has been made artificially for a long time, but the way to synthesise quinine has yet to be found. There are valuable substitutes for quinine, but none of them possess the full therapeutic properties of quinine. (2) Sulphur is not poisonous, unless it contains arsenic, which at one time was a common impurity. We should attribute the poisonous effects on horses to arsenic.

57/222. *Physostigmatis* (Jamaica).—The firm you name is unknown to us; but in any case it would be impracticable for us, in these columns, to give information as to the reliability or otherwise of particular houses.

214/68. **Poultry Food.**—In reply to "Poultry," I may say that glauber salts are much used for making hens lay, and would be a good addition to the compound.

HEDER.

Chemists and Aerated Waters.—*Provincial Chemist* (13/223) and some others would be glad to get some hints from "Gratitude."

9/216. **Enquirer.**—The active constituents of opium are perfectly soluble in water, and the aqueous tincture may be estimated by the B.P. process for estimating opium. 5xvijs. drachms of this tincture are nearly equal to 70 grains of opium.

218/2. **Oxgall.** You can remove the colouring matter of bile by evaporating to dryness and treating the residue with warm alcohol (methylated spirit), which dissolves the pigment.

220/18. **S.C.M.**—The soap which you have used evidently contains too much resin soap. Soft soap suits equally well, and the washing fluid made from it will not harden.

220/12. **Pottery.**—In "Painting Popularly Explained" (Crosby Lockwood & Co., 5s.), painting on pottery, enamel, and glass is described. This work will give you fuller information than our space permits us to give. The following are some of the colouring agents:—Chromic oxide (yellow); chromic oxide and stannic oxide (pink); cobalt oxide (blue), this being lightened by the addition of zinc oxide; cupric oxide with soda (green); cuprous oxide (red); gold oxide (ruby shades); and uranium oxide (yellow shades). The colours are applied to the unglazed clay, and when the glaze is applied the colours are developed in the kiln.

217/44. **R. Walsh.**—Putz Pomade may be made as follows: Mix intimately 1 part of rotten stone and 3 parts of peroxide of iron (rouge) both levigated, and make into a paste with vaseline. Perfume with oil of bitter almonds.

217/40. **Belladonna.**—Please refer to the index accompanying this issue.

221/5. **J. L.**—We do not have formulæ for the articles which you name.

220/68. **J. A. W.**—Perfumed Carbolic Acid:—

Carbolic acid ..	..	..	..	..	4 oz.
Rectified spirit ..	..	..	..	..	6 "
Oil of bergamot ..	..	..	..	..	20 minims
Oil of citronella ..	..	..	..	..	10 "
Water to ..	..	..	..	..	1 pint.

Dissolve the oils and acid in the spirit, and add the water, shaking well.

220/71. **H. Cumber, junr.**—To Silver Globes.—The amalgam which you name (bismuth, lead, and tin of each 1 part, and mercury 10 parts) is not so suitable as one containing lead and tin of each 1 part, bismuth 2 parts, and mercury 4 parts. Clean the globe thoroughly and warm it; then pour in the amalgam (liquified by a gentle heat) and turn round the globe so that the amalgam will touch all parts. At a certain temperature it adheres, and when the whole of the interior of the globe is coated, pour out the surplus amalgam.

Cherry Blossom Perfume.—In reply to the request for a formula for this, *Busy Bee* (221/28) says that a mixture of ess. white heliotrope 1 oz., and ess. vanilla m.x. resembles it closely.

221/66. **Raspberry.**—To colour your Raspberry Wine, you

should use the cochineal colouring made with citric acid. The following is the formula:—

Cochineal (silver grain) ..	..	..	..	1 oz.
Snbearbonate of potash ..	..	..	..	1 "

Boil in an earthenware vessel with 8 oz. of water. Then mix together—

Citric acid ..	..	..	..	5 drachms
Potash alum ..	..	..	..	1 oz.

and add to the boiling liquid, stirring until effervescence ceases. Then filter upon 4 oz. of sugar, and wash the filter with sufficient hot water to make 12 oz.

A Student (Inverness).—(1) Mixtures of quinine and iron with spirit of chloroform are apt to become gelatinous, but the reason why is not precisely known, although the chloroform appears to undergo decomposition. (2) Your solution of pernitrate of iron is certainly not right. We imagine that you have not moderated the chemical action, the result being the formation of a basic nitrate or oxide. Iron is prone to form basic compounds under certain conditions. (3) "While testing a sample of Spt. Æther. Nitrosi with a nitrometer, I found that 5 cc. evolved 16 cc. of nitric oxide gas; 5 cc. of the same sample on being neutralised with a little bicarbonate of potass evolved 17 cc. of nitric oxide gas. Would you say from that that the bicarbonate of potass. added to spt. æther. nitrosi would keep it from deteriorating?"—It is quite a common error to suppose that bicarbonate of potash preserves spirit of nitrous ether; all that it does is to neutralise the nitrous acid which is found as the ethereal constituent decomposes. The increase in the volume of gas above noted is due to carbonic acid gas evolved from a portion of undecomposed potassium bicarbonate taken into solution. (4) Your method of procedure in estimating the quinine value of ferri et quin. cit. was quite correct. The object of adding ammonia is to precipitate the quinine as hydrate.

221/25. **Beta** wishes to know if there is any cheap salt or by-product (not hydrochloric acid) to remove lime incrustation from kettles, &c.

LEGAL QUERIES.

2/223. **Viajero** writes:—"In January, 1873, A. B. passed the Minor examination of the Pharmaceutical Society. He then paid the annual subscription, was elected an associate of the Society, and continued his yearly subscription until 1883, when his friends neglected to remit the 10s. 6d. until it was too late. In due course A. B. was struck off the register of the Pharmaceutical Society. Can A. B. now open a shop and carry on the business of a chemist and druggist? He is fully qualified, but off the register." [This inquiry illustrates a frequent but curious misapprehension. After becoming qualified it is not necessary to pay to the Pharmaceutical Society or to anyone else any annual fee whatever for the purpose of keeping the name on the register. The register of chemists and druggists is a totally different thing from the register of the Pharmaceutical Society; it is the former which is referred to in courts of justice in matters under the Pharmacy Act. It is only necessary to keep the registrar informed of any change of address. If through neglect in this respect A. B.'s name has been struck off the register, this can be rectified by proving identity, and on payment of a fee which the registrar has a right to demand. The registrar's address is 17 Bloomsbury Square.]

69/221. **J. W. P.**—We do not know of the registration of the title "Cod-liver Oil Cream" as a trade-mark; but we do not undertake to say it is not on the register. You had better get the exact particulars from your informant or pay 1s. for a "search" at the Trade Marks Office.

64/223. The absence of your name from the register would be evidence against you in a court if you should be prosecuted. You might perhaps avoid the fine by proving that you were properly qualified; but, as it would be through your own neglect that your name had got struck off the register, you would no doubt have to pay all the expenses.